



Surveillance Research Program Bulletin

Web sites: <http://surveillance.cancer.gov>;
<http://seer.cancer.gov>

The Surveillance Research Program (SRP) directs the collection and analysis of data to answer key questions about cancer incidence, morbidity, mortality, and cancer-related health status in diverse regions and populations in the United States.

Contents

| | | | |
|---------------------------------------|---|--|----|
| Highlights | 1 | SEER Registry Staff Profile | |
| Employment Opportunities | 3 | Stephen M. Schwartz, Ph.D. | 6 |
| Training and Meeting | | SEER Registry Staff News | 7 |
| Opportunities | 4 | Recent SEER Registry Publications | 7 |
| SRP News | 4 | CISNET Staff Profile | |
| Other SRP Staff News | 5 | Harry de Koning, Ph.D. | 8 |
| Recent SRP Publications | 5 | CISNET News | 9 |
| | | Recent CISNET Publications | 9 |
| | | Staff Directory | 10 |

Winter 2010

Highlights

Strategic Planning Workshop Sets New SRP Agenda

SRP held a strategic planning workshop on October 22–23, 2009. The event included approximately 70 participants, nearly half of whom were government employees. Five main topic areas were discussed: the scope and content of data collected by SRP, differences between subpopulations, communications, statistical modeling and methods, and health informatics. Following a presentation on current National Cancer Institute (NCI) activities by Division of Cancer Control and Population Sciences (DCCPS) staff and ideas for future directions from extramural researchers in each topic area, participants broke into small groups to discuss future directions for the next several years. They then reconvened as a large group to compile and discuss their ideas. Priority areas and research opportunities within each area will be identified in the workshop’s final report, to be released in March 2010.

Dave Stinchcomb Speaks at DCCPS All-Hands Meeting

Surveillance Systems Branch Chief Dave Stinchcomb presented as part of the DCCPS All-Hands Meeting on September 22, 2009, themed “Data Visualization: Innovative Ways To Disseminate Your Data.” Mr. Stinchcomb’s portion, titled “Trends in (Geospatial) Data Visualization,” addressed five key trends in this field and provided examples of each as they are being explored by SRP. Other presenters included Jeff Swarz of the Office of Communications and Education and Brad Hesse of the Behavioral Research Program.

SRP Staff Featured in UNC Public Health Magazine

SRP Associate Director Brenda K. Edwards, Statistical Methodology Research Branch Chief Rocky Feuer, and DCCPS Deputy Director

Deborah Winn, all alumni of the Gillings School of Global Public Health at the University of North Carolina (UNC)-Chapel Hill, were featured in the September 14, 2009, issue of the School's magazine, *Carolina Public Health*. The article profiled each of them briefly and commended them for their application of their research training to real-world issues at NCI. Barbara K. Rimer, current dean of the School and former director of DCCPS, added in the article, "whether developing cancer initiatives or measuring and reporting data in innovative ways, these three alumni are doing exemplary work in leading advances in the control of cancer at the national and global levels. We are proud that they represent our School. Each of them has not only made important scientific contributions, they also have fostered major research and proactive innovations at the national level."

SRP and ARP Launch Health Disparities Calculator Software

On September 22, 2009, staff from SRP and the Applied Research Program (ARP) launched a beta version of the Health Disparities Calculator statistical software known as HD*Calc. The software generates 11 absolute and relative summary measures for evaluating and monitoring health disparities. It can be used with Surveillance, Epidemiology, and End Results (SEER) data as an extension of the data analysis software SEER*Stat, or independently with other population-based health data. The output can be presented in tabular and graphic formats according to user preference and can include pair-wise comparisons. For more information or to download the software, visit the HD*Calc Web site at <http://seer.cancer.gov/hdcalc>.

SRP Reorganizes Into Four New Branches

Following a year-long process, a reorganization of SRP is expected to be finalized early in 2010. SRP's strategic planning workshop in October 2009 (see page 1), SEER visioning initiatives (see page 3), expansion of research programs and grant portfolios, and completion of major contract infrastructure and cooperative agreements provided a window of opportunity to improve SRP's organizational structure. The cumulative effects of senior staff retirements and transfers to careers outside SRP, coupled with a recent flurry of new hires, also stimulated a carefully planned assessment of SRP's structure to engage experienced senior staff in scientific administrative leadership and to focus on recruiting in the future.

In addition to the Office of the Associate Director, which will remain largely intact, the new structure has four highly collaborative and integrated branches: Statistical Methodology Research Branch (Eric J. [Rocky] Feuer, Ph.D., Chief), Surveillance Systems Branch (David Stinchcomb, M.S., M.A., Chief), Data Analysis and Interpretation Branch (Kathleen Cronin, Ph.D., Acting Chief), and Data Modeling Branch (Angela Mariotto, Ph.D., Acting Chief). During the transition period, most staff will continue in their current roles as program leaders, mentor new staff, and contribute to SRP's expansion activities. SRP grantees and collaborators can expect to have more resources available to them as the reorganization takes effect.

DCCPS Holds Annual Picnic at Woodley Gardens Park

NCI's DCCPS held its annual picnic at Woodley Gardens Park on October 2, 2009. Staff showed their alumni pride by wearing sweatshirts and hats from their favorite college teams. In addition to potluck refreshments, picnic activities included volleyball, frisbee, a raffle, and mingling among various DCCPS programs.

SRP Holds Annual SEER Meeting

SRP hosted the Annual Meeting of the SEER Program registry managers and principal investigators on November 18–20, 2009. With nearly 100 in attendance, the 3-day meeting included presentations by SRP and SEER registry staff, special interest group meetings, and a discussion of innovative registry activities and current research. SRP staff spoke about data quality issues, CSv2 and the upcoming 2010 implementation, recent activities and future ideas resulting from 2008's visioning process, and other topics. DCCPS Deputy Director Deborah Winn congratulated registry staff and emphasized the translational nature of their work. Registry staff shared new initiatives and compared the challenges they face via informal discussions and formal presentations.

Several awards were presented. Kathleen McKeen received a Lifetime Achievement Award for more than 50 years of service with the Iowa Cancer Registry. The Seattle-Puget Sound Registry received a first-place award for meeting all 14 goals of its Data Quality Profile (DQP). Second-place DQP awards were given to the Atlanta Registry, the Rural Georgia Registry, the Metropolitan Detroit Cancer Surveillance System, the Northern California Cancer Center, and the Utah Cancer Registry.

Outcomes From the 2008 SEER Visioning Process

During the 2009 SEER Annual Meeting, the afternoon of November 19 was devoted to following up on the activities of the SEER Visioning process, initiated in 2008. Each of the four working groups—Registry Operations, Core Data and Timeliness, Data Use and Marketing, and Informatics—updated meeting attendees on progress and future ideas. The Registry Operations group emphasized the value of process management and conversations between registries to make informed decisions and

improve processes. The Core Data and Timeliness group discussed reconciling registries' finite capacity for collecting information with the infinite number of items that can be measured. The Data Use and Marketing group presented the results of a SEER "brand awareness" analysis and explored ideas to improve SEER's branding. The Informatics group updated the audience on new software and data tools released by the program. These presentations were followed by a group discussion on next steps.

Employment Opportunities

SRP has several openings for Mathematical Statisticians to study trends and evaluate the impact of cancer control interventions as well as geographic, socioeconomic, behavioral, genetic, and health care delivery factors on the cancer burden. Areas of interest for the program include:

1. Using state-of-the-art methods to ensure that cancer data are accurate and to detect outliers and understand their source. Methods include data mining, data visualization, and small area estimation.
2. Analysis of large and complex data sets. Population data in cancer surveillance have a complex structure that includes time and space correlations, multilevel structure, and missing data. Methods may involve spatiotemporal analysis of data, imputation techniques, and hierarchical and multilevel regression models.
3. Developing and evaluating new cancer progress measures and methods for analyzing and present-

ing national cancer statistics. Examples are survival cure models, change-point models, back-calculation methods, and competing risk modeling.

4. Analysis and simulation modeling to better understand and project trends in cancer data.
5. Developing risk and prognostic prediction models for patients.

Each position includes responsibility for initiating and managing collaborative analyses with scientists from NCI and other Institutes, agencies, and academic centers, and managing a portfolio of grants and contracts. SRP is seeking applicants with doctoral or master's degrees in statistics, biostatistics, or a related area, with experience analyzing and interpreting health statistics. Excellent communication and interpersonal skills are essential.

Contact: Angela Mariotto, Ph.D., Acting Chief, Data Modeling Branch, mariotta@mail.nih.gov

Training and Meeting Opportunities

Principles of Oncology Training Program

A. Fritz and Associates will hold a concentrated 5-day training program in cancer registry operations and procedures entitled, "Principles of Oncology for Cancer Registry Professionals." The program, to be held March 29–April 2, 2010, in Reno, NV, will emphasize accurate data collection methods and include extensive, site-specific, hands-on case coding, abstracting, and staging sessions using practice cases. The course is endorsed by the National Cancer Registrars Association (NCRA) and North American Association of Central Cancer Registries (NAACCR), and recommended by NCI's SEER Program. The registration fee is \$995, and all workshop materials will be provided. For additional course information, prerequisites, and registration materials, visit <http://www.afritz.org/pocr.htm>.

CTR Exam Preparation Workshop

A. Fritz and Associates will hold a concentrated 3-day review of areas that may be tested on the Certified Tumor Registrar (CTR) exam. The program will include classroom presentations and discussion, opportunities to ask questions, case exercises, and a practice examination with immediate feedback. It will be held January 28–30, 2010,

in Reno, NV. The registration fee is \$375. For additional course information and to register, visit <http://www.afritz.org/CTRws.htm>.

ENAR 2010 Annual Conference

The Eastern North American Region of the International Biometric Society (ENAR) will hold its 2010 Spring Meeting March 21–24, 2010, in New Orleans, LA. The agenda includes sessions on a variety of topics, including bioinformatics, Bayesian methodology, biosurveillance, comparative effectiveness, proteomics, brain imaging, and high-dimensional inference. Presentations by Presidential Invited Speaker Robert Kass and Institute of Mathematical Statistics' Medallion Lecturer Marie Davidian also will be featured. The registration cost for this meeting varies from \$120 to \$395, depending on registration date and membership status. For additional information and to register, visit <http://www.enar.org/meetings.cfm>.

NAACCR 2010 Annual Conference

The North American Association of Central Cancer Registries (NAACCR) will hold its 2010 Annual Conference from June 19–26, 2010, in Québec City, Canada. This year's conference, titled "Renewed Collaboration: A Modern Paradigm for Cancer Surveillance," will address the role, opportunities, and challenges of collaboration and how it can improve relationships, lead to joint projects, and foster learning. For additional information and to register, visit <http://www.naacrr.org/annualconference>.

SRP News

New Hires



Mandi Yu

Mandi Yu, Ph.D., joined SRP in October 2009 as a Mathematical Statistician in the Data Analysis and Interpretation Branch. Dr. Yu's background is in survey methodology, in which she earned her master's degree from the University of Nebraska-Lincoln and her doctorate from the University of

Michigan. At SRP, she will focus on evaluating disclosure risk and developing confidentiality control approaches for SEER data. Her other research areas include missing data analysis, imputation methods, longitudinal data analysis, health survey research, epidemiological studies, and clinical trials analysis. Dr. Yu's previous experience includes working as a mathematical statistician at the U.S. Food and Drug Administration, where she conducted statistical reviews of drug applications. Outside of the office, she enjoys spending time with family, yoga, Pilates, watching movies, sports, and reading.

Other SRP Staff News

Marie-Jo Horner Transitions to CDC Position in Cairo

In November 2009, Marie-Jo Horner, M.S.P.H., accepted a position with the Centers for Disease Control and Prevention (CDC). In her new role based in Cairo, Egypt, she will conduct infectious disease surveillance and outbreak investigations. "Although I am greatly looking forward to this new adventure," she said in an e-mail, "I am sad to leave such a wonderful group of talented colleagues."

Since joining SRP in 2005, Ms. Horner was involved in a number of projects, including editing the *Cancer Statistics Review*. SRP commemorated her time with a farewell luncheon on November 12, 2009, and cake on November 17, her last day in the office. "It's been a fun time working here, and it's gone by so fast," she said on that last day. "But, no mushy goodbyes!" she added, smiling, "Just eat cake."

Noteworthy Vacations

"Noteworthy Vacations" is an occasional feature in the *SRP Bulletin*. SRP staff members are encouraged to submit interesting and noteworthy photos from their vacations. Send photos and captions to Nalini Padmanabhan at nalini.padmanabhan@nih.gov.

Antoinette Percy-Laurry Tours London, Paris, and Derby



Antoinette Percy-Laurry and her husband

Antoinette visited London, Paris, and Derby for her wedding anniversary in August 2009. "It was a wonderful experience," she said. "I ended my journey with the most awesome experience—meeting family members I'd never met before."

Recent SRP Publications

Coombs NJ, Cronin KA, Taylor RJ, et al. The impact of changes in hormone therapy on breast cancer incidence in the US population. *Cancer Causes Control*. 2009 Oct 1. [Epub ahead of print].

Barry Miller Skis in Jackson, WY



Barry Miller

Barry explained, "The Grand Tetons are in the background, and the daytime temperature is 14°F. The camera had to be chipped out of [my wife] Allyson's frozen hands. It was not this cold every day!"

Dave Stinchcomb Visits San Antonio, TX

Dave traveled to San Antonio, TX, to pack up his wife Joan Burton's office at Trinity University. Since Dave joined NCI in 2004, they have been working to get two careers geographically colocated. In June, Joan received tenure at the University of Maryland and was able to resign from Trinity. "To celebrate," said Dave, "we spent a week in San Antonio packing boxes of books and sorting/recycling papers and files."



Dave Stinchcomb (far left), Joan Burton (far right), and colleagues

Denise Lewis Travels to Fallingwater in Mill Run, PA



Denise Lewis

In April 2009, Denise Lewis visited Fallingwater, the Frank Lloyd Wright house in Mill Run, PA. "It was actually snowing in the Laurel Highlands at that time, so winter had not quite left," Denise said.

Dignam JJ, Huang L, Ries L, et al. Estimating breast cancer-specific and other-cause mortality in clinical trial and population-based cancer registry cohorts. *Cancer*. 2009 Nov 15;115(22):5272-83.

Edwards BK, Ward E, Kohler BA, et al. Annual report to the nation on the status of cancer, 1975-2006, featuring colorectal cancer trends and impact of interventions (risk factors, screening, and treatment) to reduce future rates. *Cancer*. 2009 Dec 7. [Epub ahead of print].



SEER Registry Staff Profile

Stephen M. Schwartz, Ph.D.,
Member, Fred Hutchinson Cancer
Research Center



Stephen M. Schwartz

Stephen M. Schwartz, Ph.D., is a Member of the Program in Epidemiology at the Fred Hutchinson Cancer Research Center (FHCRC) in Seattle, WA, and a professor in the University of Washington's Department of Epidemiology. Dr. Schwartz's research focuses on biomarkers and molecular genetics and the causes of cancer. "I look at how we can use information about biological mechanisms to identify nonmolecular cancer risk factors, such as behavior," he explained. "Similarly, behavioral information points us toward molecular mechanisms, so it goes both ways."

Dr. Schwartz began his career at FHCRC as a Research Associate in 1984, after receiving an M.P.H. from Yale University. He completed his Ph.D. in 1990 and rose through the ranks at FHCRC, attaining his current position in 2002. Also in 2002, Dr. Schwartz began teaching and became a professor at the University of Washington. A prolific researcher and author, he has written more than 175 journal articles, participated in review committees, and peer-reviewed manuscripts for more than 35 journals.

Dr. Schwartz especially enjoys the constantly changing nature of his research. "The pace of research has picked up since I started in the field. There's a lot of pressure but a lot of opportunity," he said. "It also requires collaboration with individuals with different knowledge bases and skill sets. I find myself both learning from them and providing an educational opportunity for them."

Challenges remain, however. For example, Dr. Schwartz cautions against the potential disconnect between molecular-level research and public health value. "There are so many things that need to be fixed in our society that have little to do with biological mechanisms," he explained. He also contrasted the many recent advances in technology and tools to study cellular function with the difficulty of fully using these tools in an epidemiological context and of measuring macro variables such as diet.

Fortunately, there has been an increase in research funding to address these challenges, such as to develop more precise techniques to measure nongenetic factors. "These eventually will be helpful for the more common cancers, but will be tougher to implement for rarer cancers, where cohorts are smaller," said Dr. Schwartz. In the future, he hopes to use this knowledge of risk factors to improve public health. "The challenge is to get people to change their behavior and society to change its attitudes," he noted.

In fact, it is this duality between basic etiological science and public health that first drew Dr. Schwartz to cancer registry work more than 25 years ago. "I wanted to improve the quality of data for public health surveillance studies," he said. "Also, as a major user of registry resources, I wanted to contribute to and enhance data collection."

Selected Recent Publications

Biggs ML, Davis MD, Eaton DL, et al. Serum organochlorine pesticide residues and risk of testicular germ cell carcinoma: a population-based case-control study. *Cancer Epidemiol Biomarkers Prev.* 2008 Aug;17(8):2012-8.

Daling JR, Doody DR, Sun X, et al. Association of marijuana use and the incidence of testicular germ cell tumors. *Cancer.* 2009 Mar 15;115(6):1215-23.

Hsu L, Starr JR, Zheng Y, Schwartz SM. On combining triads and unrelated subjects data in candidate gene studies: an application to data on testicular cancer. *Hum Hered.* 2009;67(2):88-103. Epub 2008 Dec 12.

SEER Registry Staff News

Lloyd Mueller Assumes Acting PI Position at CT Tumor Registry



Lloyd Mueller

In July 2009, Senior Epidemiologist **Lloyd Mueller, Ph.D.**, became Acting Principal Investigator (PI) at the Connecticut Tumor Registry (CTR). In his new position, Dr. Mueller assumed the duties of former PI Anthony Polednak, Ph.D., and former Pro-

gram Director Mary Lou Fleissner, Ph.D, both of whom retired in June 2009. These duties include expanding CTR's analyses of state cancer trends and disparities, coordinating these analyses with the work of cancer prevention groups, evaluating the accuracy of geocoding results, and expanding outreach to cancer researchers.

Previously, Dr. Mueller conducted surveillance and health data analysis with Connecticut's Department of Public Health. "I am new to the SEER program and am quite aware that I still have a lot to learn," he said. "Nevertheless, I already am quite impressed by the quality of the work."

Recent SEER Registry Publications

Ahn J, Schumacher FR, Berndt SI, et al. Quantitative trait loci predicting circulating sex steroid hormones in men from the NCI-Breast and Prostate Cancer Cohort Consortium (BPC3). *Hum Mol Genet.* 2009 Oct 1;18(19):3749-57. Epub 2009 Jul 2.

Amundadottir L, Kraft P, Stolzenburg-Solomon RZ, et al. Genome-wide association study identifies variants in the ABO locus associated with susceptibility to pancreatic cancer. *Nat Genet.* 2009 Sep;41(9):986-90. Epub 2009 Aug 2.

Bakke B, De Roos AJ, Barr DB, et al. Exposure to atrazine and selected non-persistent pesticides among corn farmers during a growing season. *J Expo Sci Environ Epidemiol.* 2009 Sep;19(6):544-54. Epub 2008 Dec 3.

Bandera EV, Williams MG, Sima C, et al. Phytoestrogen consumption and endometrial cancer risk: a population-based case-control study in New Jersey. *Cancer Causes Control.* 2009 Sep;20(7):1117-27. Epub 2009 Apr 8.

Brown M, Schrot R, Bauer K, et al. Incidence of first primary central nervous system tumors in California, 2001-2005: children, adolescents and teens. *J Neurooncol.* 2009 Sep;94(2):263-73. Epub 2009 Apr 2.

Brown M, Schrot R, Bauer K, et al. Incidence of first primary central nervous system tumors in California, 2001-2005. *J Neurooncol.* 2009 Sep;94(2):249-61. Epub 2009 Apr 2.

Bryant MD, Schoenberg ED, Johnson TV, et al. Multimedia version of a standard medical questionnaire improves patient understanding across all literacy levels. *J Urol.* 2009 Sep;182(3):1120-5. Epub 2009 Jul 21.

Chang ET, Milne RT, Phillips KA, et al. Family history of breast cancer and all-cause mortality after breast cancer diagnosis in the Breast Cancer Family Registry. *Breast Cancer Res Treat.* 2009 Sep;117(1):167-76. Epub 2008 Nov 26.

Datta GD, Neville BA, Kawachi I, et al. Marital status and survival following bladder cancer. *J Epidemiol Community Health.* 2009 Oct;63(10):807-13. Epub 2009 May 24.

Erber E, Lim U, Maskarinec G, et al. Common immune-related factors and incident non-Hodgkin lymphoma: the multiethnic cohort. *Int J Cancer.* 2009 Sep 15;125(6):1440-5.

Gill JK, Franke AA, Steven Morris J, et al. Association of selenium, tocopherols, carotenoids, retinol, and 15-isoprostane F (2t) in serum or urine with prostate cancer risk: the multiethnic cohort. *Cancer Causes Control.* 2009 Sep;20(7):1161-71. Epub 2009 Feb 11.

Goodman M, Liu L, Ward K, et al. Invasion characteristics of oral tongue cancer: frequency of reporting and effect on survival in a population-based study. *Cancer.* 2009 Sep 1;115(17):4010-20.

Hernandez BY, Park SY, Wilkens LR, et al. Relationship of body mass, height, and weight gain to prostate cancer risk in the multiethnic cohort. *Cancer Epidemiol Biomarkers Prev.* 2009 Sep;18(9):2413-21. Epub 2009 Sep 1.

Hosgood HD 3rd, Baris D, Zhang Y, et al. Genetic variation in cell cycle and apoptosis related genes and multiple myeloma risk. *Leuk Res.* 2009 Dec;33(12):1609-14. Epub 2009 Apr 11.

Huang B, Carloss H, Wyatt SW, et al. Hormone replacement therapy and survival in lung cancer in postmenopausal women in a rural population. *Cancer.* 2009 Sep 15;115(18):4167-75.

Hyder JA, Thomson CA, Natarajan L. Adopting a plant-based diet minimally increased food costs in WHEL Study. *Am J Health Behav.* 2009 Sep-Oct;33(5):530-9.

Maskarinec G, Erber E, Verheus M, et al. Soy consumption and histopathologic markers in breast tissue using tissue microarrays. *Nutr Cancer.* 2009;61(5):708-16.

Mujumdar UJ, Hay JL, Monroe-Hinds YC, et al. Sun protection and skin self-examination in melanoma survivors. *Psychooncology.* 2009 Oct;18(10):1106-15.

Ou SH, Ziogas A, Zell JA. Asian ethnicity is a favorable prognostic factor for overall survival in non-small cell lung cancer (NSCLC) and is independent of smoking status. *J Thorac Oncol.* 2009 Sep;4(9):1083-93.

Pierce BL, Biggs ML, DeCambre M, et al. C-reactive protein, interleukin-6, and prostate cancer risk in men aged 65 years and older. *Cancer Causes Control.* 2009 Sep;20(7):1193-203. Epub 2009 Mar 8.



Rudin CM, Avila-Tang E, Harris CC, et al. Lung cancer in never smokers: molecular profiles and therapeutic implications. *Clin Cancer Res*. 2009 Sep 15;15(18):5646-61.

Slattery ML, Wolff RK, Herrick J, et al. Tumor markers and rectal cancer: support for an inflammation-related pathway. *Int J Cancer*. 2009 Oct 1;125(7):1698-704.

Song H, Ramus SJ, Tyrer J, et al. A genome-wide association study identifies a new ovarian cancer susceptibility locus on 9p22.2. *Nat Genet*. 2009 Sep;41(9):996-1000. Epub 2009 Aug 2.

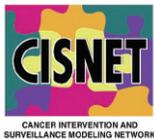
Teras LR, Goodman M, Patel AV, et al. No association between polymorphisms in LEP, LEPR, ADIPOQ, ADIPOR1, or ADIPOR2 and

postmenopausal breast cancer risk. *Cancer Epidemiol Biomarkers Prev*. 2009 Sep;18(9):2553-7. Epub 2009 Sep 1.

Trivers KF, Lund MJ, Porter PL, et al. The epidemiology of triple-negative breast cancer, including race. *Cancer Causes Control*. 2009 Sep;20(7):1071-82. Epub 2009 Apr 3.

Wayne SJ, Neuhaus ML, Koprowski C, et al. Breast cancer survivors who use estrogenic botanical supplements have lower serum estrogen levels than non users. *Breast Cancer Res Treat*. 2009 Sep;117(1):111-9. Epub 2008 Oct 18.

Additional SEER Registry publications are available online at <http://seer.cancer.gov/publications>.



CISNET Staff Profile

Harry de Koning, Ph.D., Erasmus MC



Harry de Koning

Harry de Koning, Ph.D., is the Principal Investigator (PI) for two Cancer Intervention and Surveillance Modeling Network (CISNET) grants to Erasmus MC in Rotterdam, the Netherlands. Since 1998, Dr. de Koning has led projects that focus on modeling screening practices, incidence, and mortality for a variety of cancers and evaluating screening policy options in different settings.

Dr. de Koning received an M.D. at the State University Leiden and a Ph.D. in Breast Cancer Screening Evaluation at Erasmus University Rotterdam, which included a summer program in epidemiology at the New England Epidemiology Institute at Tufts University. He is certified in epidemiology by the Netherlands Epidemiologic Society, an international member of the Breast Screen Australia Evaluation Committee, and Vice Chair of Cancer Research UK's Population and Behavioral Sciences Committee.

Dr. de Koning has been with the Erasmus MC Rotterdam's Department of Public Health for more than 20 years. He started there in 1987 as a Ph.D. researcher and focused on the cost-effectiveness of breast cancer screening in the Netherlands. After receiving his doctorate, he joined Erasmus MC's faculty as an Assistant Professor from

1995–1999; as an Associate Professor from 1999–2008; and, since 2008, as a professor.

In addition to teaching courses on screening, his research interests include modeling and conducting randomized controlled trials of screening practices. His approach is more methodological than disease-specific; he has examined several cancers and other conditions such as language delays in children. "My research is driven by the quantitative evaluation of screening, its pros and cons, and choosing good policy," he said.

This focus is evident in Dr. de Koning's research with CISNET, which aims to evaluate public health policies related to screening and treatment in the United States. The project addresses lung, breast, prostate, and colorectal cancers using a European approach known as the MISCAN (microsimulation) model. "Using this model," he explained, "we simulate millions of individual life histories in which we model the natural history of cancer, starting from the screenable but preclinical years."

Dr. de Koning emphasizes the policy applications of his research. "We really try to come to our answers by comparing policies and finding the optimal one," he said. "[That includes] defending current policies and advising changes." For example, an ongoing debate among cancer epidemiologists centered on whether improved screening or improved treatment was primarily responsible for decreasing breast cancer rates in the United States. Dr. de Koning's models showed that the decrease can be attributed to a roughly equal mix of the two. He also studied the issue of overdiagnosis in prostate cancer screening and made policy recommendations based on the results of this research.

When asked about the future of the field, Dr. de Koning spoke of two exciting possibilities. First, he believes that

increased individualization of screening practices involving risk stratification based on factors such as breast density will occur during the next 10 years. Second, in a prediction that echoes his decision to focus on more than a single disease, he believes that screening examinations soon will be combined to include a variety of cancer sites and perhaps even noncancerous conditions. Although these possibilities will require some scientific development before they can be implemented, Dr. de Koning is optimistic. "The question is, 'Why not?'" he said.

Selected Recent Publications

van Klaveren RJ, Oudkerk M, Prokop M, et al. Management of lung nodules detected by volume CT scanning. *N Engl J Med*. 2009 Dec 3;361(23):2221-9.

Schröder FH, Hugosson J, Roobol MJ, et al. Screening and prostate-cancer mortality in a randomized European study. *N Engl J Med*. 2009 Mar 26;360(13):1320-8. Epub 2009 Mar 18.

Okonkwo QL, Draisma G, der Kinderen A, et al. Breast cancer screening policies in developing countries: a cost-effectiveness analysis for India. *J Natl Cancer Inst*. 2008 Sep 17;100(18):1290-300. Epub 2008 Sep 9.

van Agt HM, van der Stege HA, de Ridder-Sluiters H, et al. A cluster-randomized trial of screening for language delay in toddlers: effects on school performance and language development at age 8. *Pediatrics*. 2007 Dec;120(6):1317-25.

Otto SJ, Fracheboud J, Looman CW, et al. Initiation of population-based mammography screening in Dutch municipalities and effect on breast cancer mortality: a systematic review. *Lancet*. 2003 Apr 26;361(9367):1411-7.

CISNET News

U.S. Preventive Services Task Force Releases New Guidelines for Mammography Screening

On November 17, 2009, the U.S. Preventive Services Task Force released a new set of guidelines for breast cancer screening, published in the *Annals of Internal Medicine*. The new guidelines recommend biennial screening for women between ages 50 and 74 and against teaching women clinical breast examination. For women age 40 to 49, the decision to start screening should be an individual one. The previous set of guidelines, released in 2002, recommended that women start screening at age 40 and be screened every 1 to 2 years.

In making its recommendation, the Task Force cited NCI-funded research from CISNET and an evidence

review of other studies. The CISNET study used six independent models to compare 20 screening schedules, each defined by a combination of starting age, stopping age, and frequency (annual vs. biennial). The benefits and harms of each schedule were estimated. Benefits included percent mortality decline and gain in life years, and harms including false positives, unnecessary biopsies, and overdiagnosis. Although additional screening led to increased benefits, resulting harms increased as well. The revised guidelines, which cited evidence from the CISNET models and a number of clinical trials, aimed to balance the benefits of screening with these harms.

The recommendation was met with considerable media attention, which did not surprise SRP's Kathy Cronin, Ph.D. "I knew it would be controversial," she said. "This debate demonstrates the need for research into targeted screening schedules, with increased screening for women at higher risk."

Recent CISNET Publications

Bentley TG, Weinstein MC, Kuntz KM. Effects of categorizing continuous variables in decision-analytic models. *Med Decis Making*. 2009 Sep-Oct;29(5):549-56. Epub 2009 Jul 13.

Draisma G, Etzioni R, Tsodikov A, et al. Reconciling differing estimates of lead time and overdiagnosis due to PSA screening: results from the Cancer Intervention and Surveillance Modeling Network. *J Nat Cancer Inst*. (in press).

Etzioni R, Gulati R, Mariotto AB. Overview of prostate cancer trends in the era of PSA screening. In: Ankerst DP, Tangen CM, Thompson IM, eds. *Prostate cancer screening*. 2nd ed. The Humana Press Inc. (in press).

Goldwasser DL, Kimmel M. Modeling excess lung cancer risk among screened arm participants in the Mayo Lung Project. *Cancer*. 2009 Nov 13. [Epub ahead of print].

Lansdorp-Vogelaar I, van Ballegooijen M, Zauber AG, et al. Effect of rising chemotherapy costs on the cost savings of colorectal cancer screening. *J Natl Cancer Inst*. 2009 Oct 21;101(20):1412-22. Epub 2009 Sep 24.

Mandelblatt JS, Cronin KA, Bailey S, et al. Effects of mammography screening under different screening schedules: model estimates of potential benefits and harms. *Ann Intern Med*. 2009 Nov 17;151(10):738-47.

Surveillance Research Program Staff

Office of the Associate Director (OAD)

Telephone: 301-496-8506

Fax: 301-480-4077

Brenda K. Edwards, Ph.D., Associate Director

Kristine Crane, M.A., CRTA Fellow

Amy Garson, Program Analyst

Terri Harshman, Program Analyst

Lawrence Hwang, M.P.H., Scientific Communications
Editor

Nalini Padmanabhan, M.P.H., CRTA Fellow

Antoinette Percy-Laurry, M.S.P.H., Public Health Analyst

Judith Swan, M.H.S., Public Health Advisor

Surveillance Systems Branch (SSB)

Telephone: 301-594-7251

Fax: 301-496-9949

David Stinchcomb, M.S., M.A., Chief

Peggy Adamo, R.H.I.T, C.T.R., Public Health Analyst

Lois Dickie, C.T.R., Public Health Analyst

Betsy Flagg, Program Analyst

Carol Johnson, C.T.R., Public Health Analyst

Carol Kosary, M.A., Mathematical Statistician

Jennifer Ruhl, R.H.I.T, C.T.R., Public Health Analyst

Leon Sun, Ph.D., Mathematical Statistician

Zaria Tatalovich, Ph.D., Health Statistician

Data Analysis and Interpretation Branch (DAIB)

Telephone: 301-435-2792

Fax: 301-480-2046

Kathy Cronin, Ph.D., Acting Chief

Sean Altekruse, D.V.M., M.P.H., Ph.D., Epidemiologist

Milton Eisner, Ph.D., Public Health Statistician

Minjung Lee, Ph.D., Postdoctoral Fellow

Denise R. Lewis, Ph.D., M.P.H., Epidemiologist

Mandi Yu, Ph.D., Mathematical Statistician

Data Modeling Branch (DMB)

Telephone: 301-435-4923

Fax: 301-480-2046

Angela Mariotto, Ph.D.,
Acting Chief

Michelle Dunn, Ph.D.,

Mathematical Statistician

Hyunsoon Cho, Ph.D.,

Mathematical Statistician

Rose Fredua, Program Analyst

Statistical Methodology Research Branch (SMRB)

Telephone: 301-435-7739

Fax: 301-480-2046

Eric J. (Rocky) Feuer, Ph.D., Chief

Huann-Sheng Chen, Ph.D., Mathematical Statistician–
Genetics

Benmei Liu, Ph.D., Mathematical Statistician

Miquel Sample-Jubilee, Program Specialist

Li Zhu, Ph.D., Mathematical Statistician

Division of Extramural Activities Support (DEAS)

Telephone: 301-496-8506

Fax: 301-480-2046

Tangela Anderson, B.S., DEAS Task Leader

Diane Barrett, Extramural Support Assistant

Issa Burguillo, Extramural Support Assistant

Anastasia Nosiri, Extramural Support Assistant

Administrative Resource Center (ARC)

Telephone: 301-451-9470

Fax: 301-435-5071

Mary Kashanchi, Deputy ARC Manager

Angela Childers Green, Administrative Officer–Team
Lead

Steve Brown, Purchasing Agent

Rhonda Turner, Administrative Technician

Donna Wade, Administrative Officer