# **BCSC Newsletter for February 2013**

This newsletter is produced by Group Health Research Institute/Group Health Cooperative, which manages the BCSC's Statistical Coordinating Center (SCC).

#### **News & Announcements**

#### **Breast Cancer Surveillance Consortium Risk Calculator**

The Breast Cancer Surveillance Consortium (BCSC) developed a BCSC Risk Calculator for health professionals to estimate a woman's five-year risk of developing invasive breast cancer. The calculator was developed and validated in 1.1 million women undergoing mammography across the United States, among whom 15,000 were diagnosed with invasive breast cancer. The BCSC Risk Calculator is highlighted in the Stat Bite section of the Journal of the National Cancer Institute, which reports the Distribution of 5-year Breast Cancer Risk in the Breast Cancer Surveillance Consortium (bcsc) Estimated With the Bcsc Risk Calculator.

#### **BCSC-NCI Outreach Flier**

Invitations to collaborate with <u>the BCSC</u>, the nation's largest longitudinal collection of mammography data from breast cancer screening in community practice, were sent to BCSC collaborators, schools of Public Health, and authors of relevant breast cancer studies. Researchers can access BCSC data and analytic support and, thanks to funding from the <u>National Cancer Institute</u>, most services are available at no charge for approved proposals. <u>View the BCSC-NCI Data Resource Flier</u>.

#### JACR Best Article 2012 - Clinical Practice

The BCSC publication Radiologist Agreement for Mammographic Recall by Case Difficulty and Finding Type led by Tracy Onegae, PhD, was the Editor's Choice in the Journal of the American College of Radiology (JACR). The study assessed agreement of mammographic interpretations by community radiologists with consensus interpretations of an expert radiology panel to inform approaches aimed at improving mammographic performance. Recognition of this award was published in the January 2013 issue.

### **Algorithms: Identifying Breast Cancer Recurrences**

Two new algorithms for identifying breast cancer recurrences and second primary breast cancers from administrative healthcare data have been developed using data from more than 3,000 women at the BCSC Group Health registry. These algorithms promote efficient research on outcomes by letting researchers set a high priority on either sensitivity or specificity and PPV. Jessica Chubak, PhD of Group Health Research Institute led the HMORN CRN-affiliated, NCI-funded study. See JNCI publication. An "Implementation Guide" with SAS code is available to those wishing to use and validate the algorithms further. Contact Jessica Chubak, PhD for the guide or for more information.

[Return to top]

#### **BCSC** in the News

#### When to start screening for breast cancer-and how often?

BCSC researchers Karla Kerlikowske, MD and Diana Miglioretti, PhD analyzed a case study in the November 22 New England Journal of Medicine. Citing evidence about balancing the benefits and harms of screening mammography, they wrote that most women at average risk of breast cancer should start screening every other year at age 50, not yearly at 40-consistent with U.S. Preventive Services Task Force recommendations and most countries with breast cancer screening programs. See full text.

#### Breast density does not influence breast cancer death among breast cancer patients

A study featured in the August, 2012 edition of the <u>Journal of the National Cancer Institute</u> reveals that the risk of mortality from breast cancer is not associated with high mammographic breast density in breast cancer patients. This study was led by <u>Gretchen Gierach</u>, PhD, as well as the following BCSC researchers: <u>Laura</u>, <u>Ichikawa</u>, <u>MSM</u>, <u>Karla</u>

<u>Kerlikowske, MD</u>률, <u>Pamela Vacek, PhD</u>률, <u>Donald Weaver, MD</u>률, and <u>Stephen Taplin, MD</u>. See <u>full text</u>률. See <u>JNCI</u> press-release를 and NIH press-release.

[Return to top]

# **People News**

Please <u>send us news</u> about researchers at your site for future editions!

Diana Miglioretti, PhD, senior investigator at Group Health Research Institute (GHRI) started an appointment as the Dean's Full Professor of Biostatistics in the Department of Public Health Sciences, School of Medicine, University of California, Davis on January 1, 2013. Dr. Miglioretti will remain a senior investigator at GHRI and will continue leading the BCSC-P01, "Risk-Based Breast Cancer Screening in Community Settings" as a Principal Investigator through GHRI.

Rebecca Hubbard , PhD, Assistant Investigator at the Group Health Research Institute (GHRI) took over for Dr. Miglioretti as Principal Investigator of the Breast Cancer Surveillance Consortium Data Resource (BCSC), a five-year \$7.5 million contract from NCI to share BCSC data more widely. Dr. Hubbard's research aims to provide a clearer picture of the link between changes in disease over time and how people feel about their health. Her dynamic approach combines subjective and objective health outcomes to develop new longitudinal models for multistate disease progression.

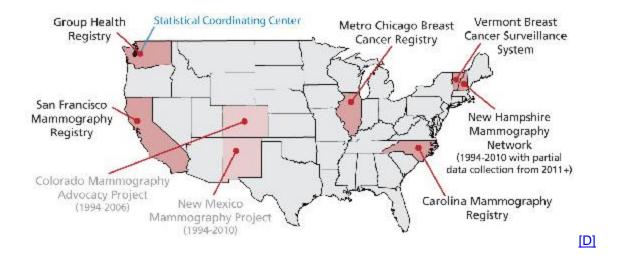
[Return to top]

# **Quarterly Spotlight**

The <u>Breast Cancer Surveillance Consortium</u> (BCSC) is the nation's largest longitudinal collection of mammography data from cancer screening in community practice. Our collaborative network of mammography registries is supported by a Statistical Coordinating Center and funded by the National Cancer Institute (NCI). As a national resource for population-based comparative effectiveness research, the BCSC is paving the way for innovative studies of breast cancer screening and patient outcomes.

#### Information we collect:

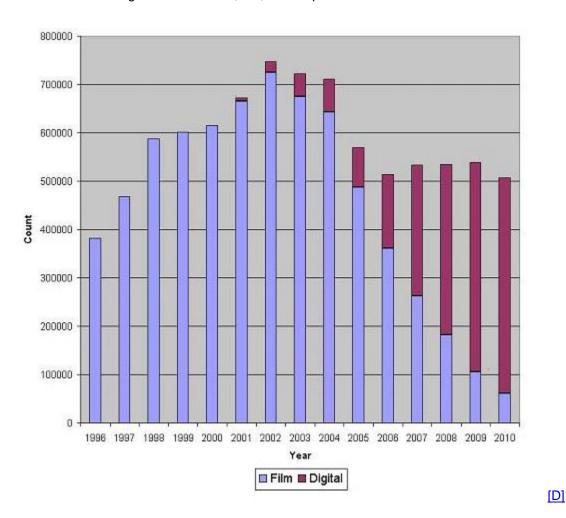
- Women: demographics, risk factors, clinical history
- Mammography examinations: assessment, recommendation, breast density
- Facilities: services, technologies, characteristics
- Tumor registries and pathology labs: breast and ovarian cancer, benign breast disease, treatment
- · Vital statistics: date and cause of death



[Return to top]

**Stat-Bite** 

Number of mammograms based on 1,961,894 unique women in the BCSC from 1996 - 2010



[Return to top]

Geller BM, Ichikawa L, Miglioretti DL, Eastman D. Web-based mammography audit feedback. *AJR Am J Roentgenol* 2012 Jun;198(6):W562-7. doi: 10.2214/AJR.11.7971. [View Abstract]

Geller BM, Bogart A, Carney PA, Elmore JG, Monsees BS, Miglioretti DL. Is confidence of mammographic assessment a good predictor of accuracy? *AJR Am J Roentgenol* 2012 Jul;199(1):W134-41. doi: 10.2214/AJR.11.7701. [View Abstract]

Spayne MC, Gard CC, Skelly J, Miglioretti DL, Vacek PM, Geller BM. Reproducibility of BI-RADS breast density measures among community radiologists: a prospective cohort study. *Breast J* 2012 Jul-Aug;18(4):326-33. [View Abstract]

Fenton JJ, Miglioretti DL. Why we need more breast cancer screening trials. *Evid Based Med* 2012 Dec;17(6):169-70. [Look up in PubMed]

Fenton JJ, Zhu W, Balch S, Smith-Bindman R, Lindfors KK, Hubbard RA. External validation of Medicare claims codes for digital mammography and computer-aided detection. *Cancer Epidemiol Biomarkers Prev* 2012 Aug;21(8):1344-7. [View Abstract]

Fenton JJ, Zhu W, Balch S, Smith-Bindman R, Fishman P, Hubbard RA. Distinguishing Screening From Diagnostic Mammograms Using Medicare Claims Data. *Med Care* 2012 Aug 23. [Epub ahead of print] [View Abstract]

Yasmeen S, Hubbard RA, Romano PS, Zhu W, Geller BM, Onega T, Yankaskas BC, Miglioretti DL, Kerlikowske K. Risk of advanced-stage breast cancer among older women with comorbidities. *Cancer Epidemiol Biomarkers Prev* 2012 Sep;21(9):1510-9. [View Abstract]

Cook AJ, Elmore JG, Zhu W, Jackson SL, Carney PA, Flowers C, Onega T, Geller B, Rosenberg RD, Miglioretti DL. Mammographic interpretation: radiologists' ability to accurately estimate their performance and compare it with that of their peers. *AJR Am J Roentgenol* 2012 Sep;199(3):695-702. doi: 10.2214/AJR.11.7402. [View Abstract]

Carney PA, Abraham L, Cook A, Feig SA, Sickles EA, Miglioretti DL, Geller BM, Yankaskas BC, Elmore JG. Impact of an educational intervention designed to reduce unnecessary recall during screening mammography. *Acad Radiol* 2012 Sep;19(9):1114-20. [View Abstract]

Brawley OW. Risk-based mammography screening: an effort to maximize the benefits and minimize the harms. *Ann Intern Med* 2012 May 1;156(9):662-3. [Look up in PubMed]

Smith RA, Kerlikowske K, Miglioretti DL, Kalager M. Clinical decisions. Mammography screening for breast cancer. *N Engl J Med* 2012 Nov 22;367(21):e31. [Look up in PubMed]

Hubbard RA, Zhu W, Onega TL, Fishman P, Henderson LM, Tosteson AN, Buist DS. Effects of digital mammography uptake on downstream breast-related care among older women. *Med Care* 2012 Dec;50(12):1053-9. doi: 10.1097/MLR.0b013e318269e9c2. [View Abstract]

Henderson LM, Hubbard RA, Onega TL, Zhu W, Buist DS, Fishman P, Tosteson AN. Assessing health care use and cost consequences of a new screening modality: the case of digital mammography. *Med Care* 2012 Dec;50(12):1045-52. doi: 10.1097/MLR.0b013e318269e0d1. [View Abstract]

Chang Y, Schechter CB, van Ravesteyn NT, Near AM, Heijnsdijk EA, Adams-Campbell L, Levy D, de Koning HJ, Mandelblatt JS. Collaborative modeling of the impact of obesity on race-specific breast cancer incidence and mortality. *Breast Cancer Res Treat* 2012 Dec;136(3):823-35. [View Abstract]

Harvey JA, Gard CC, Miglioretti DL, Yankaskas BC, Kerlikowske K, Buist DS, Geller BA, Onega TL; For the Breast Cancer Surveillance Consortium. Reported Mammographic Density: Film-Screen versus Digital Acquisition. *Radiology* 2013 Mar;266(3):752-758. [View Abstract]

Armstrong K, Handorf EA, Chen J, Bristol Demeter MN. Breast cancer risk prediction and mammography biopsy decisions: a model-based study. *Am J Prev Med* 2013 Jan;44(1):15-22. doi: 10.1016/j.amepre.2012.10.002. [View Abstract]

Carney PA, Parikh J, Sickles EA, Feig SA, Monsees B, Bassett LW, Smith RA, Rosenberg R, Ichikawa L, Wallace J, Tran K, Miglioretti DL. Diagnostic Mammography: Identifying Minimally Acceptable Interpretive Performance Criteria. *Radiology* 2013 Jan 7. [Epub ahead of print] [View Abstract]

Braithwaite D, Zhu W, Hubbard RA, O'Meara ES, Miglioretti DL, Geller B, Dittus K, Moore D, Wernli KJ, Mandelblatt J, Kerlikowske K; Breast Cancer Surveillance Consortium. Screening Outcomes in Older US Women Undergoing Multiple Mammograms in Community Practice: Does Interval, Age, or Comorbidity Score Affect Tumor Characteristics or False Positive Rates? *J Natl Cancer Inst* 2013 Mar 6;105(5):334-41. [View Abstract]

[Return to top]

# **Upcoming Abstract Deadlines**

# The 35th Annual Meeting of the Society for Medical Decision Making (SEDM)№

Baltimore, MD
October 20-23, 2013

Call for abstracts and short courses will be open late February 2013

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San Francisco, CA June 6-7, 2013

Abstract Submission Deadline: April 26, 2013

[Return to top]

# **Upcoming Conferences**

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San Francisco, CA June 6-7, 2013

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Chicago, IL May 31-June 4, 2013

### American Society of Preventive Oncology &

Memphis, Tennessee March 9-12, 2013

#### 2013 34th Annual Meeting & Scientific Sessions of Society of Behavioral Medicine (SBM)₽

San Francisco, CA March 20-23, 2013

# Society of Breast Imaging 11th Post-Graduate Coursed ■

Los Angeles, CA April 6-9, 2013

### American Association for Cancer Research (AACR) Annual Meeting

Washington, D.C. April 6-10, 2013

### American College of Radiology (ACR) National Conference on Breast Cancer (NCBC)

Hollywood, FL April 13-15, 2012

### 2013 ARRS Annual Meeting®

Washington DC April 14-19, 2013 American Congress of Obstetricians and Gynecologists (ACOG) Annual Clinical Meeting № New Orleans, LA

May 4-8, 2013