fda.gov/Radiation-EmittingProducts/MammographyQualityStandards ActandProgram/FacilityScorecard/ucm113858.htm. Accessed October 12, 2009.

- Hsiao WC, Braun P, Dunn DL, et al. An overview of the development and refinement of the Resource-Based Relative Value Scale. The foundation for reform of U.S. physician payment. *Med Care*. 1992;30:NS1– NS12.
- Ballard-Barbash R, Taplin SH, Yankaskas BC, et al. Breast cancer surveillance consortium: a national mammography screening and outcomes database. *Am J Roentgenol*. 1997;169:1001–1008.
- Clark DO, Von Korff M, Saunders K, et al. A chronic disease score with empirically derived weights. *Med Care*. 1995;33:783–795.
- Fishman PA, Goodman MJ, Hornbrook MC, et al. Risk adjustment using automated ambulatory pharmacy data: the RxRisk model. *Med Care*. 2003;41:84–99.
- Hornbrook MC, Goodman MJ. Chronic disease, functional health status, and demographics: a multi-dimensional approach to risk adjustment. *Health Serv Res.* 1996;31:283–307.
- 29. Hornbrook MC, Goodman MJ, Bennett MD, et al. Assessing health plan

case mix in employed populations: self-reported health status models. *Adv Health Econ Health Serv Res.* 1991;12:233–272.

- Boudreau DM, Doescher MP, Saver BG, et al. Reliability of group health cooperative automated pharmacy data by drug benefit status. *Pharmacoepidemiol Drug Saf.* 2005;14:877–884.
- Lumley T, Diehr P, Emerson S, et al. The importance of the normality assumption in large public health data sets. *Annu Rev Public Health*. 2002;23:151–169.
- Lee DW, Stang PE, Goldberg GA, et al. Resource use and cost of diagnostic workup of women with suspected breast cancer. *Breast J*. 2009;15:85–92.
- Fishman PA, Wagner EH. Managed care data and public health: the experience of Group Health Cooperative of Puget Sound. *Annu Rev Public Health*. 1998;19:477–491.
- Saunders KW, Davis RL, Stergachis A. Group health cooperative. In: Strom BL, ed. *Pharmacoepidemiology*. Chichester, United Kingdom: John Wiley & Sons Ltd; 2005:223–239.
- Fletcher SW, Elmore JG. False-positive mammograms—can the USA learn from Europe? *Lancet*. 2005;365:7–8.

TABLE A1. Breast	Services	Identified a	at Group	Health and	d Included in	Analyses
-------------------------	----------	--------------	----------	------------	---------------	----------

Procedures	Codes				
Imaging	CPT: Diagnostic mammogram 76090, 76091; screening mammogram 76092; MRI 76093, 76094; breast ultrasound 76645; breast ductogram 19030				
	ICD-9: ultrasound 88.73				
Surgical appointment for breast care	CPT: 10160, 99024, 99201, 99202, 99203, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99273 and medical specialty = surgical (vascular or general) or nursing and either				
	Diagnosis of: abnormal breast findings 793.8, 793.80; lump in breast 611.72; breast cancer 174.9; or				
	Surgery follow-up V67.0, V67.09, 879.9, 998.3, 998.59, 998.9 preceded by breast tissue sample (fine needle aspiration/biopsy/mastectomy); or				
	Preoperative examination V72.84 followed by breast tissue sample (fine needle aspiration/biopsy/mastectomy)				
Fine needle aspiration	CPT: 10021, 10022, 19000, 19001, 88172*, 88173*				
Biopsy or nodal excision	CPT: 19100, 19101, 19102, 19103, 19290, 19291, 19295, 76095, 76096, 76942, 19110, 19120, 19125, 19126, 88305*, 88307*, 76098, 19160, 19162, 38740, 38745, 38792				
	ICD-9: 85.11, 85.12, 85.19, 85.20, 85.21, 85.22, 85.23, 85.25, 40.22, 40.23, 40.3, 40.51				
	DRG: 259, 260, 261, 262				
Mastectomy	CPT: 19180, 19182, 19200, 19220, 19240, 19242				
	ICD-9: 85.41, 85.42, 85.43, 85.44, 85.45				
	DRG: 257, 258				

*Pathology codes were included only if a biopsy/fine needle aspiration code occurred within 7 day.

ICD-9 indicates international classification of disease 9th clinical modification; CPT, current procedural terminology; DRG, diagnosis-related group.