NATIONAL SURVEY OF
Mammography Practices

CONDUCTED LOCALLY BY:
Carolina Mammography Registry
University of North Carolina at Chapel Hill

SPONSORED BY:
National Cancer Institute
Agency for Healthcare Research and Quality

LOCATION OF PARTICIPATING RADIOLOGIST (HIGHLIGHTED STATES) AND ACADEMIC AFFILIATIONS OF INVESTIGATORS

*proposed site
SURVEY OF MAMMOGRAPHY PRACTICE

This survey takes about 10-15 minutes to complete. We realize how busy you are and greatly appreciate your time. Your input can help make a difference in mammography.

Section A. Demographics and General Clinical Practice

1. What is your year of birth? ________ Year

2. What is your gender?
   □ Male
   □ Female

3. Clinical Experience:
   ________ Year graduated residency
   ________ Year graduated breast imaging fellowship (if applicable)

4. What is the total number of years you have interpreted mammograms (not including residency/fellowship training)?
   ________ Years

5. Are you affiliated with an academic medical center?
   □ No
   □ Yes, adjunct clinical faculty
   □ Yes, primary appointment in an academic medical center

6. How many hours per week do you work on average? (please insert a single value rather than a range)
   ________ hours/week

7. How is your workload distributed?
   Breast imaging/breast clinical work:
   - Screening Mammography ................. ______%  
   - Diagnostic Mammography ................. ______%  
   - Other (e.g. US, MRI, Interventional) ....... ______%  
   Other clinical work (non-breast) ................. ______%  
   Administrative & research activities ............. ______%  
   ________________ ______________%  
   Total = 100%
8. Approximately how many mammograms did you interpret in 2005?
   A. Total number of screening mammograms interpreted: # _________ in 2005
      Of these, for what % were you the:
         - Only reader? ………………………… _____%
         - 1st reader (subsequently double-read)?…… _____%
         - ≥ 2nd reader? ……………………………… _____%
      Total= 100 %

   B. Total number of diagnostic mammograms interpreted: # _________ in 2005
      Of these, for what % were you the:
         - Only reader? ………………………… _____%
         - 1st reader (subsequently double-read)?…… _____%
         - ≥ 2nd reader? ……………………………… _____%
      Total= 100 %

   C. The numbers provided above are (check only one box below):
      □ Estimated (only a guess)
      □ Estimated with confidence
      □ Actual (based on audit reports)

9. Please estimate the average number of mammograms per year you interpreted over the last 5 years.
   Average # screening mammograms = #__________ per year
   Average # diagnostic mammograms = #__________ per year

10. How often do you personally talk with patients about their mammography examinations?

<table>
<thead>
<tr>
<th></th>
<th>Exams with Positive Assessment</th>
<th>Exams with Negative Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never 1</td>
<td>Rarely 2</td>
</tr>
<tr>
<td>A. Screening exams</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>B. Diagnostic exams</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

11. When discussing a positive mammography exam with a patient, would you:

<table>
<thead>
<tr>
<th></th>
<th>Never 1</th>
<th>Rarely 2</th>
<th>Sometimes 3</th>
<th>Often 4</th>
<th>Always 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Use numbers and statistics such as, “your chance of having cancer is less than 2%”</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>B. Use general statements such as, “your chance of having cancer is extremely low”</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
12. What are your thoughts on computer-aided detection (CAD) programs and double reading?

<table>
<thead>
<tr>
<th>Computer Aided Detection (CAD)</th>
<th>Double-Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strongly Disagree</strong></td>
<td><strong>Strongly Disagree</strong></td>
</tr>
<tr>
<td><strong>Disagree</strong></td>
<td><strong>Disagree</strong></td>
</tr>
<tr>
<td><strong>Neutral</strong></td>
<td><strong>Neutral</strong></td>
</tr>
<tr>
<td><strong>Agree</strong></td>
<td><strong>Agree</strong></td>
</tr>
<tr>
<td><strong>Strongly Agree</strong></td>
<td><strong>Strongly Agree</strong></td>
</tr>
</tbody>
</table>

| **A. Reassures mammographers** | |
| **B. Reassures patients** | |
| **C. Improves cancer detection rate** | |
| **D. Increases recall rate** | |
| **E. Protects radiologists from malpractice suits** | |
| **F. Improves profitability of breast imaging** | |
| **G. Takes too much time** | |

13. When your films are double read, is the second reader usually (2nd read is by a non-resident or non-fellow radiologist):

- Blinded to the 1st readers’ interpretation?
- Aware of the 1st readers’ interpretation?
- Not applicable

14. What percent of mammograms you interpret are subjected to CAD?

- Screening: ______ % (0% = None, 100% = all exams)
- Diagnostic: ______ % (0% = None, 100% = all exams)

15. When you are interpreting screening mammograms, do you review the patients’ clinical history (e.g., risk factors such as age, family history, estrogen use, previous biopsies)?

- Never/rarely
- Yes, but only if an abnormality is noted
- Yes, most of the time/always when available
Section B. Attitudes about Audit Reports

The U.S. government requires all mammography facilities to gather data on radiologist performance as part of their annual inspection for certification.

16. Do you receive audit reports showing your own performance?
   - □ No
   - □ Yes ⇒ If yes, what year did you begin receiving them? ___ ___ ___ ___
     ⇒ If yes, how many times per year do you receive them ____________/year

17. Regarding audit reports:

<table>
<thead>
<tr>
<th>A. I trust the accuracy of the reports</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B. I pay close attention to my audit numbers</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>C. Gathering the audit report data is valuable to my practice.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>D. Audit reports prompt me to review cancers missed on mammography</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>E. Audit reports prompt me to improve my interpretive performance</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>F. If congress mandates more intensive auditing requirements but does not provide funding to support this regulation, I may stop interpreting mammograms</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

18. I am confident in my understanding of numbers and statistics…

<table>
<thead>
<tr>
<th>A. In interpreting medical literature</th>
<th>Not at all Confident</th>
<th>Not very Confident</th>
<th>Neutral</th>
<th>Confident</th>
<th>Very Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B. In interpreting audit reports</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>C. When I present information on mammography to colleagues</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>D. When I present information on mammography with patients</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
19. How do you think your current screening performance compares to others in the U.S.?
(Please check box below with a quick estimate)

<table>
<thead>
<tr>
<th></th>
<th>My Rate is...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Much Lower</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

A. Recall Rate (% of all screens with a positive assessment leading to immediate additional work-up)

B. Positive Predictive Value of Biopsy Recommended (PPV2; % of all screens with biopsy or surgical consultation recommended that resulted in cancer)

C. False Positive Rate (% of all screens interpreted as positive and no cancer is present)

D. Cancer Detection Rate (# of cancers detected by mammography per 1000 screens)

20. For the following questions about screening mammograms, please estimate your values below since 2000 and your goals (please insert a single value rather than a range)

A. Estimate of your average values since 2000:
   - Recall Rate ....................... _____%
   - PPV2 ............................. _____%
   - False Positive Rate .............. _____%
   - Cancer Detection Rate ............ _____/1000

B. Your goal (value you realistically would like to achieve):
   - Recall Rate ....................... _____%
   - PPV2 ............................. _____%
   - False Positive Rate .............. _____%
   - Cancer Detection Rate ............ _____/1000
Section C. CME Experiences and Preferences

We will be offering you a free CME course next year and would like your input.

21. What proportion of your breast imaging CME time over the past 3 years was spent on:

- Screening mammography…_______%
- Other breast imaging………_______% (e.g., diagnostic mammography, US, MRI, CAD, digital mammography, interventional)
- Malpractice/billing………….._______%

Total CME= 100%

22. How many CME hours related to mammography do you regularly undertake per 3 year reporting period?

☐ I do about the 15 hour minimum required
☐ I do much more than 15, but less than 30
☐ 30 hours or more

23. By 2007, will you have high speed internet access?

☐ No
☐ Yes
☐ Don’t know

24. Regarding CME Courses:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. I prefer instructor-led activities (lectures or instructor-led teleconferences)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>B. I prefer self-directed activities (reading professional journal articles with CME exercises)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C. I prefer interactive activities</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D. CME improves my interpretive performance</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E. I would be interested in a free Category 1 CME program to help me with mammography interpretation and use of audit reports</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>F. I would take a free CME course over the internet</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
25. Regarding Medical Malpractice…

<table>
<thead>
<tr>
<th>I am concerned about the impact medical malpractice is having on how I practice mammography</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
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<tbody>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

26. Have you ever been named in a medical malpractice suit (any suit filed and either dropped, settled out of court or gone to trial)?  
(Please check all that apply)

- [ ] No, never been sued
- [ ] Yes, suit(s) was related to mammography → year(s) suit(s) filed __________________
- [ ] Yes, suit(s) was not related to mammography → year(s) suit(s) filed __________________

27. If you were to continue to interpret mammograms on a regular basis, what do you think is the probability of a new medical malpractice suit being filed against you in the next 5 years?  
_____________% (0% = definitely will not happen, 100% = definitely will happen)

28. Vignette: A diagnostic mammogram for a new palpable lump shows an obvious malignant lesion. You realize a mistake was made in your prior interpretation of this woman’s last screening mammogram. Prior films had apparently been put up in reverse order, and you mistakenly concluded that the calcifications were decreasing in number when they were actually increasing. Your prior incorrect interpretation has resulted in a delayed diagnosis.

A. How likely would you be to disclose this error to the patient? I would: (Check only one)

- [ ] Definitely not disclose this error
- [ ] Disclose this error only if asked by the patient
- [ ] Probably disclose this error
- [ ] Definitely disclose this error

B. You tell the patient that today’s diagnostic work-up shows calcifications that are suspicious for cancer. Which of the following statements most closely resembles what you would say to the patient regarding the error in interpreting their prior examinations? (Check only one)

- [ ] (I would not say anything further to the patient regarding the error.)
- [ ] “The calcifications are larger and are now suspicious for cancer.”
- [ ] “The calcifications may have increased on your last mammogram, but their appearance was not as worrisome as they are now.”
- [ ] “An error occurred during the interpretation of your last screening mammogram, and the calcifications had actually increased in number, not decreased.”
Section E. Listing of Facilities Where You Have Interpreted Mammograms

29. Please write in below the name of any facilities other than ______________________ where you have interpreted mammograms as a primary or double reader anytime between 2001-2005:

________________________________________  ______________________________________
________________________________________  ______________________________________
________________________________________  ______________________________________
________________________________________  ______________________________________

Thank You!

Your comments are welcome: _______________________________________________________
________________________________________  ______________________________________
________________________________________  ______________________________________
________________________________________  ______________________________________
________________________________________  ______________________________________
Thank You!

Please return the survey in the self-addressed stamped envelope provided or mail it to:

Name: ________
Phone number: ________
Email: ________