Medical Imaging Confidence Index (MICI)

1st Quarter 2014 outlook (January – March)

Created for AHRA – January 2014

Courtesy Of: THE MARKETECH GROUP

ahra the association for medical imaging management
MICI Index Overview

Why was MICI created?

✓ The MarkeTech Group and AHRA collaborated on the creation of MICI based on the belief that measuring the confidence of US medical imaging administrators on a regular basis would provide a valuable index for those having an interest in this industry.

✓ The MICI panel consists of a select group of imagePRO panel members from around the US representing different hospital sizes and geographic locations to capture a true "industry outlook": how imaging administrators see the future of medical imaging in regard to revenues, costs, purchasing, and growth.

✓ This exciting initiative captures the “mood” of imaging administrators on a quarterly basis regarding the state of medical imaging in the US. It also provides a unique statistical index that is likely to attract a lot of attention from those following this industry.

What is imagePRO and why is it important?

✓ imagePRO was created by The MarkeTech Group to provide a professional community for imaging administrators to participate in studies aimed at advancing the development of medical imaging technology.

✓ The imagePRO panel is a true community of industry professionals and is the leading opt-in panel of this industry. Members are subjected to strict enrollment requirements to represent the voice of their peers and to be part of a group of professionals whose knowledge and input is important.
178 imaging directors/managers of hospitals completed the 2-minute Web survey regarding their perception of medical imaging trends for the first quarter of 2014.

Scores measure the level of confidence, and range between 0 to 200. The score interpretation follows:
- Below 50 is extremely low confidence
- 50 to 69 is very low confidence
- 70 to 89 is low confidence
- 90 to 110 reflect an ambivalent score (Neutral)
- 111 to 130 is high confidence
- 131 to 150 is very high confidence
- Anything above 150 is extremely high confidence

Hospital bed size
- Under 100 beds: 44%
- 100 - 299 beds: 37%
- 300 or more beds: 19%
Results are reflective of national trends because of the manner in which participants were invited to participate.

- Participants were recruited by region and number of beds to reflect known AHA incidence.

- Once the final counts were confirmed there was some statistical adjustment—weighting—to ensure the index reflects the US hospital imaging market. This type of adjustment is common when estimating overall market share, trends, and attitudes.

Recruitment accounts for about 90% of correct hospitals and regions to reflect the US hospital market.

- While relatively minor in magnitude, the weighting accounts for the final 10% to refine the estimates and ensure they represent the US hospital market.

- This refinement is necessary to create an index that truly represents how radiology departments view the economic outlook for the current quarter and will ensure that subsequent MICI results are valid.
Regions

- Pacific: 10%
- Mountain: 8%
- West North Central: 10%
- East North Central: 20%
- Mid-Atlantic: 15%
- South Atlantic: 19%
- West South Central: 9%
- East South Central: 8%
First quarter 2014 results:
There is high confidence in growing as a profit center and that staff costs will remain constant.
There is concern about receiving adequate reimbursement from Medicare.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score Mean</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>92</td>
<td>Neutral</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and</td>
<td>57</td>
<td>Very low confidence</td>
</tr>
<tr>
<td>interventional imaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>121</td>
<td>High confidence</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>79</td>
<td>Low confidence</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>113</td>
<td>High confidence</td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>91</td>
<td>Neutral</td>
</tr>
</tbody>
</table>
Hospital bed size differences:
Hospitals with 300 or more beds are more confident in growth of diagnostic and interventional radiology than hospitals with under 100 beds.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Under 100 beds</td>
</tr>
<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>84</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>59</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>126</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>77</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>102</td>
</tr>
<tr>
<td><strong>Composite score across all areas</strong></td>
<td><strong>88</strong></td>
</tr>
</tbody>
</table>
Regional differences:
While none of the differences are statistically significant:
East North Central, West North Central, and Pacific regions have very high confidence that internal operating and staff costs will remain constant.
East South Central region has extremely low confidence about receiving adequate reimbursement from Medicare.

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<th>Topic</th>
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<tbody>
<tr>
<td></td>
<td>Mid-Atlantic</td>
</tr>
<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>103</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>52</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>107</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>88</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>112</td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>92</td>
</tr>
</tbody>
</table>
Summary

- There is high confidence in growing as a profit center and that staff costs will remain constant.
- There is concern about receiving adequate reimbursement from Medicare.
- Hospitals with 300 or more beds are more confident in growth of diagnostic and interventional radiology than hospitals under 100 beds.
- East North Central, West North Central, and Pacific regions have very high confidence that internal operating and staff costs will remain constant.
- Receiving adequate reimbursement: While none of these apparent differences are significant, East South Central has extremely low confidence. All other regions have very low confidence.
Results are now shown for S1 2012 through Q1 2014.

Comparisons are presented to show any trending of the data over a one year period.

Analyses are based on between group analysis of variance (ANOVA) where participant’s scores are compared over time to determine if changes occur.
No statistically significant differences in confidence for any of the MICI scores between the 4th quarter 2013 and 1st quarter 2014.

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<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>Q4 2013</td>
</tr>
<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>94</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and</td>
<td>62</td>
</tr>
<tr>
<td>interventional imaging</td>
<td></td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>124</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>75</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>112</td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>92</td>
</tr>
</tbody>
</table>
Trending

Growth of diagnostic and interventional radiology, access to capital for imaging equipment and IT needs, and growth as profit center have lower confidence in the 1st quarter 2014 compared to the 1st semester 2012.

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Margin of error: ±8 percentage points
One year analysis review
S1-2012 through Q1-2014

For details on MICI scores by bed size – please click on underlined links, or go to Appendix B.

Average MICI Scores

Margin of error: ±8 percentage points
Summary

- In aggregate, the MICI scores between 4th quarter 2013 and 1st quarter 2014 have not changed and are not statistically significant.

- Under 100 beds: Access to capital have higher confidence the 1st quarter 2014 than the 4th quarter 2013.

- 100 to 299 beds: Access to capital have lower confidence the 1st quarter 2014 than the 4th quarter 2013.

- Growth of diagnostic and interventional radiology, access to capital for imaging equipment and IT needs, and growth as profit center have lower confidence in the 1st quarter 2014 compared to the 1st semester 2012.
Medical Imaging Confidence Index (MICI)
January to March 2014
Study and report have been conducted and brought to you courtesy of:

THE MARKETECH GROUP

ahra
the association for medical imaging management
APPENDIX A - Questionnaire

**Grow monthly in diagnostic and interventional imaging**
Over the next three months, I am very optimistic that our department:

*S1Q1.* will grow monthly study volumes in Diagnostic imaging modalities (X-ray, Ultrasound, MRI, CT and NM).

*S1Q2.* will grow monthly study volumes in Interventional imaging modalities (biopsy, angio cath lab, etc.).

**Receive adequate reimbursement from Medicare for diagnostic and interventional imaging**
Over the next three months, I am very optimistic that our department:

*S1Q3.* will receive adequate reimbursement from Medicare for Diagnostic imaging studies.

*S1Q4.* will receive adequate reimbursement from Medicare for Interventional imaging procedures.

**Internal operating and staff costs will remain constant**
Over the next three months, I am very optimistic that the imaging department:

*S2Q1.* internal operating expenses (not including staff costs) will remain constant.

*S2Q2.* internal staff costs will remain constant.
APPENDIX A - Questionnaire

**Will have access to capital for imaging equipment and IT needs**
Over the next three months, I am very optimistic that our department:

**S3Q1.** will have access to capital/credit to fund investments in new imaging equipment and the costs associated with Imaging capital projects (e.g. siting & construction costs).

**S3Q2.** will have access to capital/credit to fund investments in areas outside of imaging equipment, such as PACS, RIS, or other imaging-related IT needs.

**S3Q3.** will have access to capital/credit to fund investment in imaging facility expansion, if desired.

**Will grow as a profit center**
Over the next three months, I am very optimistic that our department:

**S4Q1.** will continue to maintain/grow Diagnostic imaging services as a profit center.

**S4Q2.** will continue to maintain/grow Interventional imaging services as a profit center.
APPENDIX B

- Graphs are presented by number of beds to show MICI for all quarters and semesters.

- Interpretation is by number of beds—any changes across quarters are identified as being significant.

- If no changes are identified then differences that might appear are due to random fluctuation in responses over time and should not be considered real.
Appendix: January to March 2014 results

Under 100 beds: Access to capital have higher confidence the 1st quarter 2014 than the 4th quarter 2013.
100 to 299 beds: Access to capital have lower confidence the 1st quarter 2014 than the 4th quarter 2013.
Appendix: January to March 2014 results

300 or more beds: No changes in MICI between the 4th quarter 2013 and the 1st quarter 2014.

Hospital bed size: 300 or more beds
- Will grow monthly in diagnostic and interventional radiology
- Receive adequate reimbursement from Medicare for diagnostic and interventional imaging
- Internal operating and staff costs will remain constant
- Will have access to capital for imaging equipment and IT needs
- Will maintain/grow as a profit center
- Composite score across all areas

Back to Hospital bed size summary
Appendix: January to March 2014 results

Will grow monthly in diagnostic and interventional radiology: Hospital bed size

Back to Hospital bed size summary
Appendix:
January to March 2014 results

Average MICI Scores

Receive adequate reimbursement from Medicare for diagnostic and interventional imaging: Hospital bed size

Quarter/Semester

1st semester 3rd quarter 4th quarter 1st quarter 2nd quarter 3rd quarter 4th quarter 1st quarter

2012 2012

January 2014 January 2014

23

Back to Hospital bed size summary
Appendix: January to March 2014 results

Internal operating and staff costs will remain constant: Hospital bed size

<table>
<thead>
<tr>
<th>Quarter/Semester</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st quarter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd quarter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd quarter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th quarter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Back to Hospital bed size summary
Appendix:
January to March 2014 results

**Average MICI Scores**

**Quarter/Semester**
- Under 100 beds
- 100 to 299 beds
- 300 or more beds

*Will have access to capital for imaging equipment and IT needs: Hospital bed size*

January 2014
Appendix: January to March 2014 results

Average MICI Scores

Quarter/Semester
Will maintain/grow as a profit center: Hospital bed size

- Under 100 beds
- 100 to 299 beds
- 300 or more beds