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 U.S. 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 U.S. 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.
159 imaging directors/managers of hospitals completed the 3-minute Web survey regarding their perception of medical imaging trends for the third quarter of 2017.

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:

- 45% Under 100
- 37% 100-299
- 18% 300 or more
Index Methodology

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 U.S. 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 U.S. hospital market.

- While relatively minor in magnitude, the weighting accounts for the final 10% to refine the estimates and ensure they represent the U.S. 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.
Index Methodology

Regions

- Pacific: 11%
- Mountain: 5%
- West South Central: 12%
- Mid-Atlantic: 14%
- South Atlantic: 14%
- East South Central: 7%
- West North Central: 15%
- East North Central: 22%
Staff costs to remain constant, growth in volume and profit

<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>115</td>
<td>High confidence</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>81</td>
<td>Low confidence</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>131</td>
<td>Very high confidence</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>100</td>
<td>Neutral</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>129</td>
<td>High confidence</td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>110</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

There is concern about receiving adequate reimbursement from Medicare.
Hospitals with **100 or more beds are more confident** that **growth in diagnostic / interventional radiology** will occur. Hospitals with **less than 100 beds more confident** in the **operating and staff costs to remain constant**.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Under 100 beds</th>
<th>100 to 299 beds</th>
<th>300 or more beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>104</td>
<td>123</td>
<td>123</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>78</td>
<td>83</td>
<td>84</td>
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<tr>
<td><strong>Internal operating and staff costs will remain constant</strong></td>
<td>142</td>
<td>127</td>
<td>114</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>92</td>
<td>108</td>
<td>105</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>122</td>
<td>133</td>
<td>141</td>
</tr>
<tr>
<td><strong>Composite score across all areas</strong></td>
<td>106</td>
<td>114</td>
<td>113</td>
</tr>
</tbody>
</table>
**Regional differences:** While none of the differences are statistically significant

South Atlantic, North Central, and East South central regions have **very high confidence** that internal operating and staff costs will remain constant.

South Atlantic and Mountain regions have **very high confidence** in growing as a profit center.

The South Central regions have **very low confidence**; while the Atlantic and Pacific regions have **low confidence** about receiving adequate reimbursement from Medicare.

East South Central region has **very low confidence**; while the Mountain and Pacific regions have **low confidence** in access to capital for equipment.

<table>
<thead>
<tr>
<th>Topic</th>
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<tbody>
<tr>
<td></td>
<td>Mid-Atlantic</td>
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<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>106</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>76</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>108</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>106</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>124</td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>104</td>
</tr>
</tbody>
</table>
There is **high confidence** in the growing of diagnostic and interventional radiology, staff costs will remaining constant, and growing as a profit center.

There is **concern** about receiving adequate reimbursement from Medicare.

Hospitals with 100 or more beds are **more confident** in growth of diagnostic/interventional radiology. Hospitals with less than 100 beds are **more confident** in the operating and staff costs to remain constant.

South Atlantic, North Central, and East South central regions have **very high confidence** that internal operating and staff costs will remain constant. South Atlantic and Mountain regions have **very high confidence** in growing as a profit center.

The South Central regions have **very low confidence**; while the Atlantic and Pacific regions have **low confidence** about receiving adequate reimbursement from Medicare. The East South Central region has **very low confidence** in access to capital for equipment.
Quarter-to-Quarter analysis

Results are now shown for Q4 2015 through Q3 2017.

- 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.
### Quarter-to-Quarter analysis
Q2-2017 through Q3-2017

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score Mean</th>
<th>Q2 2017</th>
<th>Q3 2017</th>
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<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
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</tr>
<tr>
<td><strong>Composite score across all areas</strong></td>
<td></td>
<td><strong>111</strong></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>

No statistically significant differences in confidence for any of the MICI scores between Q2 and Q3 2017.
Quarter-to-Quarter analysis
Q4-2015 through Q3-2017

Average MICI Scores

4th quarter 1st quarter 2nd quarter 3rd quarter 4th quarter 1st quarter 2nd quarter 3rd quarter
2015 2016 2017

TRENDING:
Growth as a profit center has higher confidence in Q3 2017 compared to Q3 2016. No significant differences in all areas from Q3 to Q2 2017.

Margin of error: ±8 percentage points
Quarter-to-Quarter analysis
Q4-2016 through Q3-2017

Average MICI Scores

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Under 100 beds</th>
<th>100 to 299 beds</th>
<th>300 or more beds</th>
</tr>
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<tbody>
<tr>
<td>4th Q 2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Q 2017</td>
<td></td>
<td></td>
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<tr>
<td>2nd Q 2017</td>
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<tr>
<td>3rd Q 2017</td>
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<tr>
<td>4th Q 2016</td>
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<td>1st Q 2017</td>
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</tbody>
</table>

Click here to see more information
Click here to see more information
Click here to see more information
Click here to see more information
Click here to see more information

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

Margin of error: ±8 percentage points
Quarter-to-Quarter analysis
Trend Summary

**Overall:**
Higher confidence in *growth as a profit center*

In aggregate, **higher confidence** in Q3 2017 compared to Q3 2016.

**Under 100 beds:**
Higher confidence in *growth as a profit center* but less confidence in *access to capital*

Higher confidence in Q3 2017 compared to Q3 2016 in growth as a profit center. **Less confidence** in Q3 2017 compared to Q1/Q2 2017 in obtaining access to capital.

**100 to 299 beds:**
Higher confidence in *access to capital*

**300 or more beds:**
Less confidence in *staff cost to remain constant*

Higher confidence in Q3 2017 compared to Q2 2017 in obtaining access to capital.

Less confidence in Q3 2017 compared to Q2 2017 in the internal operating and staff costs to remain constant.
Study & report have been conducted & brought to you courtesy of:
Appendix:
July to September 2017 results

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:
July to September 2017 results

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:
Q4-2015 through Q3-2017 results

APPENDIX B

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

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:
Q4-2015 through Q3-2017 results

Under 100 beds: Growth as a profit center have higher confidence in Q3 2017 compared to Q3 2016. Access to capital have higher confidence in Q2/Q1 2017 compared to Q3 2017.
Appendix: Q4-2015 through Q3-2017 results

100 to 299 beds: Access to capital have higher confidence in Q3 2017 compared to Q2 2017.
Appendix:
Q4-2015 through Q3-2017 results

Average MICI Scores

Quarter

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

300 or more beds: Internal operating and staff costs will remain constant have higher confidence in Q2 2017 compared to Q3 2017.
Appendix: Q4-2015 through Q3-2017 results

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

Back to Hospital bed size summary
Appendix: Q4-2015 through Q3-2017 results

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

<table>
<thead>
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<tbody>
<tr>
<td>4th quarter</td>
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<tr>
<td>2015</td>
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<tr>
<td>1st quarter</td>
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<tr>
<td>2016</td>
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</tbody>
</table>

Back to Hospital bed size summary
Appendix: Q4-2015 through Q3-2017 results

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

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

Back to Hospital bed size summary
Appendix: Q4-2015 through Q3-2017 results

<table>
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<tbody>
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<td>50</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>1st quarter 16</td>
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<td>2nd quarter 16</td>
<td>125</td>
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<tr>
<td>3rd quarter 16</td>
<td>150</td>
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<td>4th quarter 17</td>
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<tr>
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</tr>
<tr>
<td>2nd quarter 17</td>
<td>225</td>
<td>250</td>
<td>275</td>
</tr>
</tbody>
</table>

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

Back to Hospital bed size summary
Appendix: Q4-2015 through Q3-2017 results

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

Quarter

Under 100 beds 100 to 299 beds 300 or more beds

Back to Hospital bed size summary