Study & report have been conducted & brought to you courtesy of:

Q3 Report:
3rd Quarter 2019 Outlook
July-September

Prepared for: AHRA
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.
162 imaging directors/managers of hospitals completed the 3-minute Web survey regarding their perception of medical imaging trends for the third quarter of 2019.

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:
- 54% Under 100
- 31% 100-299
- 15% 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 were 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: 9%
- Mountain: 6%
- West South Central: 9%
- Mid-Atlantic: 15%
- South Atlantic: 17%
- East North Central: 20%
- West North Central: 19%
- East South Central: 6%
Results for Q3 2019
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>119</td>
<td>High confidence</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>87</td>
<td>Low confidence</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>130</td>
<td>High confidence</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>95</td>
<td>Neutral</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>135</td>
<td>Very high confidence</td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>112</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

There is concern about receiving adequate reimbursement from Medicare.
Hospitals with **100 to 299 beds or more beds** are more **confident** that **growth in diagnostic / interventional radiology** and **growth as profit center** will occur more than hospitals with less than 100 beds. Hospitals with **under 100 beds** are more **confident** that **cost will remain constant** than hospitals with 100 to 299 beds.

<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>110</td>
<td><strong>131</strong></td>
<td>130</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>89</td>
<td>82</td>
<td>89</td>
</tr>
<tr>
<td><strong>Internal operating and staff costs will remain constant</strong></td>
<td><strong>144</strong></td>
<td>113</td>
<td>117</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>92</td>
<td>96</td>
<td>106</td>
</tr>
<tr>
<td><strong>Will maintain/grow as a profit center</strong></td>
<td>124</td>
<td><strong>151</strong></td>
<td>142</td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td><strong>110</strong></td>
<td>113</td>
<td><strong>116</strong></td>
</tr>
</tbody>
</table>
Regional differences: although not statistically different, Mountain seems to be different

**Mountain region** has very high confidence in growth in diagnostic / interventional radiology.

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

All regions have at least high confidence in growing as a profit center.

<table>
<thead>
<tr>
<th>Topic</th>
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</tr>
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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>116</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>87</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>122</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>141</td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>118</td>
</tr>
</tbody>
</table>
Summary

1. There is **high confidence** in the **growth of diagnostic and interventional radiology**, **facility growing as a profit center**, and **staff costs remaining constant**.

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

3. Hospitals with **100 to 299 beds** are **more confident** in growth of diagnostic / interventional radiology and growth as a profit center. Hospitals with **under 100 beds** are **more confident** that internal operating and staff costs will remain constant than hospitals with 100 to 299 beds.

4. All regions have at least **high confidence** in growing as a profit center. **East North Central, West North Central, East South Central, West South Central, and Pacific** regions have **very high confidence** that internal operating and staff costs will remain constant. The **Mountain** region has **very high confidence** in growth in diagnostic / interventional radiology.

5. **Mid-Atlantic, West North Central, East South Central, West South Central, and Mountain** regions have **low confidence** about receiving adequate reimbursement from Medicare. The **South Atlantic, West North Central, East & West South Central, and Pacific** regions have **low confidence** in access to capital for equipment.
Q3-2019 Member comments about the outlook

Study volume increase / planned growth:
- We currently are a very sound hospital and continue to grow monthly. I feel strongly that we will continue to do well over the next 6-12 months.
- Current quarter continues to show growth in all areas. The latter half of the year typically trends upward for us as well. We have some capital projects underway and expect to start additional capital projects late in the year.
- CT has especially grown in volumes lately.
- Even through the summer months, I am optimistic about keeping our radiology volumes growing.
- Somewhat surprisingly we have seen very strong volume growth in the last six months that has far exceeded our projections. It appears that maturity of several service lines and recruitment efforts are paying off. Optimistic that these volumes are sustainable.

Uncertainty / complaints about healthcare policy and reimbursement:
- We are continuing to grow volumes, but reimbursements seem to continue to dwindle.
- In my estimation services and reimbursement will remain close to constant.
- Continue to see market shift to outpatient facilities and pricing competition. Increase in copays and deductibles.
- Reimbursement news continues to be so distressing.

Access to capital for imaging equipment / IT needs:
- Budget for new equipment has already been exhausted for the year.
- We have received budget approval for three new CT scanners and a SPECT scanner to be installed later this year.
- Optimistic for capital as a large building project is completed and capital funds should be available.

Constant staff / operating costs
- Staffing is an issue and the cost is rising due to use of outside agency staff.
- Not enough staffing and need more equipment.
- This is a small hospital, growth is physician dependent, we are short of physicians. Reimbursement cuts are hard to absorb.
- Staff cost projected to increase due to annual increases and market adjustments.
Quarter-to-Quarter analysis

**Results** are now shown for Q4 2017 through Q3 2019.

- 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
Q2-2019 through Q3-2019

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score Mean</th>
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<tbody>
<tr>
<td></td>
<td>Q2 2019</td>
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<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
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<td><strong>113</strong></td>
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Less confidence in Q3 2019 on “Internal operating cost remain constant”
Quarter-to-Quarter analysis
Q4-2017 through Q3-2019

TRENDING: Overall, higher confidence in growing as a profit center in Q3 2019 compared to Q3 2018 and Q4 2017. Less confidence in Internal operating cost will remain constant in MICI Q3 2019 compared to Q2 2019.
Quarter-to-Quarter analysis
Q4-2018 through Q3-2019

Average MICI Scores

Margin of error: ±8 percentage points

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

Overall: Higher confidence in growth as profit center and less confidence in Internal operating cost remain constant.

In aggregate, Higher confidence in growing as a profit center in Q3 2019 compared to Q3 2018 and Q4 2017. Less confidence in Internal operating cost remaining constant in Q3 2019 compared to Q2 2019.

Under 100 beds: No change in confidence.

No changes in MICI among Q3 2019 and all previous quarters.

100 to 299 beds: Higher confidence in growth as profit center and less confidence in Internal operating cost remain constant.

Higher confidence in growing as a profit center in Q3 2019 compared to Q2 2019, Q3 & Q1 2018 and Q4 2017 and less confidence in Internal operating cost remaining constant in Q3 2019 compared to Q4 2018.

300 or more beds: No change in confidence.

No changes in MICI among Q3 2019 and all previous quarters.
Appendix
Appendix: July to September 2019 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 2019 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: Q4-2017 through Q3-2019 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: Under 100 beds
Q4-2017 through Q3-2019 results

Under 100 beds: No changes in MICI between MICI Q3 2019 and Q2 2019. No changes among Q3 2019 and all previous quarters.
Appendix: 100 to 299 beds
Q4-2017 through Q3-2019 results

100 to 299 beds: Higher confidence in growing as a profit center in Q3 2019 compared to Q2 2019, Q3/Q1 2018, and Q4 2017. Higher confidence in internal operating and staff cost remaining constant in Q4 2019 compared to Q3 2019.
Appendix: 300 or more beds
Q4-2017 through Q3-2019 results

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: No changes in MICI between MICI Q3 2019 and Q2 2019. No changes among Q3 2019 and all previous quarters.
Appendix: Growth in diagnostic/interventional cardiology; Q4-2017 through Q3-2019 results

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

Back to Hospital bed size summary
Appendix: Receive adequate reimbursement Q4-2017 through Q3-2019 results

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

Quarter

Under 100 beds
100 to 299 beds
300 or more beds

4th quarter 2017
1st quarter 2018
2nd quarter 2018
3rd quarter 2018
4th quarter 2018
1st quarter 2019
2nd quarter 2019
3rd quarter 2019

Back to Hospital bed size summary
Appendix: Operating and staff cost Q4-2017 through Q3-2019 results

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

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

Back to Hospital bed size summary
Appendix: Access to capital
Q4-2017 through Q3-2019 results

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Under 100 beds</th>
<th>100 to 299 beds</th>
<th>300 or more beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th quarter 2017</td>
<td>75</td>
<td>100</td>
<td>125</td>
</tr>
<tr>
<td>1st quarter 2018</td>
<td>100</td>
<td>125</td>
<td>150</td>
</tr>
<tr>
<td>2nd quarter 2018</td>
<td>125</td>
<td>150</td>
<td>175</td>
</tr>
<tr>
<td>3rd quarter 2018</td>
<td>150</td>
<td>175</td>
<td>200</td>
</tr>
<tr>
<td>4th quarter 2018</td>
<td>175</td>
<td>200</td>
<td>225</td>
</tr>
<tr>
<td>1st quarter 2019</td>
<td>200</td>
<td>225</td>
<td>250</td>
</tr>
<tr>
<td>2nd quarter 2019</td>
<td>225</td>
<td>250</td>
<td>275</td>
</tr>
<tr>
<td>3rd quarter 2019</td>
<td>250</td>
<td>275</td>
<td>300</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: Growth as profit center
Q4-2017 through Q3-2019 results

Average MICI Scores

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