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

Q1 Report: 1st Quarter 2019 Outlook January–March

Prepared for: AHRA
**MICI 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 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.
182 imaging directors/managers of hospitals completed the 3-minute Web survey regarding their perception of medical imaging trends for the first 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:

- 44% Under 100
- 37% 100-299
- 19% 300 or more
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.
Results for Q1 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>118</td>
<td>High confidence</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>80</td>
<td>Low confidence</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>128</td>
<td>high confidence</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>101</td>
<td>Neutral</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>132</td>
<td>Very high confidence</td>
</tr>
<tr>
<td><strong>Composite score across all areas</strong></td>
<td><strong>111</strong></td>
<td>Neutral</td>
</tr>
</tbody>
</table>

There is concern about receiving adequate reimbursement from Medicare.
## Hospital bed size differences: Mixed high confidence

Hospitals with **100 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 300 or more beds.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score Mean</th>
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</thead>
<tbody>
<tr>
<td><strong>Will grow monthly in diagnostic and interventional radiology</strong></td>
<td>100 126 143</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>80 75 87</td>
</tr>
<tr>
<td><strong>Internal operating and staff costs will remain constant</strong></td>
<td>139 124 113</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>103 91 115</td>
</tr>
<tr>
<td><strong>Will maintain/grow as a profit center</strong></td>
<td>116 144 147</td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>107 110 121</td>
</tr>
</tbody>
</table>
Regional differences: although not statistically different, Mountain seems to be different.

West South Central and Pacific regions **very high confidence** in **growth in diagnostic / interventional radiology**.

East and West North Central, West South Central, and Mountain **very high confidence** that **internal operating and staff costs will remain constant**.

Mid-Atlantic, South Atlantic, Mountain, and Pacific regions **very high confidence** in **growing as a profit center**.

### Topic

<table>
<thead>
<tr>
<th></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>110</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td><strong>86</strong></td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>120</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>93</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td><strong>136</strong></td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>108</td>
</tr>
</tbody>
</table>
Summary

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

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

3. Hospitals with **100 or more 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 300 or more beds.

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

5. **West South Central** region has **very low confidence** about receiving adequate reimbursement from Medicare. The **West North Central** region has **low confidence** in access to capital for equipment.
Q1-2019 Member comments about the outlook

Study volume increase / planned growth:
- Upgrade of RIS software and other enhancements will move forward. Invasive areas should see some increase but diagnostic radiology will be stagnant.
- Imaging volumes are typically lower in the first quarter than they are in the 4th quarter, but our market share continues to grow and I expect our volumes to be similar or slightly higher than first quarter of the prior year.
- Anticipating changes this year, as it relates to Outpatient versus Inpatient volumes and expect OP volumes to increase as IP volumes decrease, as they did last year. This is either a "wait and see" year or a "rebuilding" year.
- Insurance companies keep steering patients away from hospital settings. Maintaining volumes will be challenging but the acquisition of PCPs helps increase volumes as they are owned and paid by the hospitals.

Uncertainty / complaints about healthcare policy and reimbursement:
- Preauthorization requirements continue to slow down the process of getting patients in for procedures in a timely manner. We are starting to see more and more for profit outpatient imaging centers performing cash only procedures. In my opinion these centers seriously interfere with high quality imaging.
- APC changes usually decrease reimbursement in the past which we hope imaging will not be hit as hard but there is usually something that will decrease in reimbursement. Overall profit margins are very low which restricts capital. Our organization continues to see fairly strong growth, but the concerns around policy changes from the federal government are a significant concern.
- I see our volumes steadily increasing each quarter; however, reimbursement is consistently going down because of mandates from CMS.

Constant staff / operating costs
- Staff wage increases go into effect in the next quarter.
- There is not enough capital equipment funds to keep up with replacement of aging equipment. Qualified staff in certain modalities are in short supply causing an increase in wages.
- Budgeted staffing hours are being reduced across all imaging modalities for 2019.
- There will be a slight bump in labor costs due to merit increases. Other than that, labor will be stable.
Quarter-to-Quarter analysis

**Results** are now shown for Q2 2017 through Q1 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 Q4-2018 through Q1-2019

No statistically significant differences in confidence for any of the MICI scores between Q4 2018 and Q1 2019.

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<tbody>
<tr>
<td></td>
<td>Q4 2018</td>
</tr>
<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>124</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>79</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>131</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>97</td>
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Quarter-to-Quarter analysis
Q2-2017 through Q1-2019

TRENDING: Overall, no changes in MICI between MICI Q2 2017 and Q1 2019.

Margin of error: ±8 percentage points
Quarter-to-Quarter analysis
Q2-2018 through Q1-2019

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:**
*No change* in confidence starting on Q2 2017 and Q1 2019.

**Under 100 beds:**
Higher confidence in access to capital in Q1 2019 compared to Q3-Q4 2018.

**100 to 299 beds:**
Lower confidence in internal operating cost remaining the same in Q1 2019 compared to Q4 2018.

**300 or more beds:**
Higher confidence in growth in diagnostic and interventional radiology in Q1 2019 compared to Q3 2017.

In aggregate, no change in confidence in access to capital in Q1 2019 compared to Q3-Q4 2018.
Appendix
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:
January to March 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:
Q2-2017 through Q1-2019 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
Q2-2017 through Q1-2019 results

Under 100 beds: Higher confidence in access to capital in Q1 2019 compared to Q3-Q4 2018.
Appendix: 100 to 299 beds
Q2-2017 through Q1-2019 results

100 to 299 beds: Higher confidence in internal operating and staff cost remaining constant in Q1 2019 compared to Q4 2018.
Appendix: 300 or more beds
Q2-2017 through Q1-2019 results

Back to Hospital bed size summary

300 or more beds: Higher confidence in growth in diagnostic and interventional radiology in Q1 2019 compared to Q3 2017.
Appendix: Growth in diagnostic/interventional cardiology; Q2-2017 through Q1-2019 results

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

Back to Hospital bed size summary
Appendix: Receive adequate reimbursement Q2-2017 through Q1-2019 results

Average MICI Scores

Quarter
2nd quarter 3rd quarter 4th quarter 1st quarter 2nd quarter 3rd quarter 4th quarter 1st quarter
Year

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

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

Back to Hospital bed size summary
Appendix: Operating and staff cost Q2-2017 through Q1-2019 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 Q2-2017 through Q1-2019 results

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

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

Under 100 beds 100 to 299 beds 300 or more beds

Back to Hospital bed size summary
Appendix: Growth as profit center Q2-2017 through Q1-2019 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