1st Quarter 2017 Outlook
January–March

Prepared For:

AHRA
January 2017
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.
Index Methodology

183 imaging directors/managers of hospitals completed the 3-minute Web survey regarding their perception of medical imaging trends for the first 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:

- 46% Under 100
- 36% 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: 10%
- Mountain: 5%
- West South Central: 12%
- Mid-Atlantic: 14%
- South Atlantic: 15%
- East South Central: 8%
- East North Central: 21%
- West North Central: 16%
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>113</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>102</td>
<td>Neutral</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>125</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 **300 or more beds are more confident** that **growth in diagnostic / interventional radiology and as a profit center** will occur than hospitals with fewer than 100 beds.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Under 100 beds</th>
<th>100 to 299 beds</th>
<th>300 or more beds</th>
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<tbody>
<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>104</td>
<td>118</td>
<td><strong>128</strong></td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>80</td>
<td>80</td>
<td>85</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>134</td>
<td>129</td>
<td>125</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>98</td>
<td>105</td>
<td>107</td>
</tr>
<tr>
<td><strong>Will maintain/grow as a profit center</strong></td>
<td><strong>115</strong></td>
<td><strong>131</strong></td>
<td><strong>139</strong></td>
</tr>
<tr>
<td>Composite score across all areas</td>
<td>106</td>
<td>112</td>
<td>116</td>
</tr>
</tbody>
</table>
Regional differences: While none of the differences are statistically significant

East and West North Central regions have **very high confidence**; while the East South Central has **extremely high confidence** that internal operating and staff costs will remain constant.

East North Central, West South Central, and Mountain regions have **very high confidence** in growing as a profit center.

The East/West South Central regions have **very low confidence**; while the other regions have **low confidence** about receiving adequate reimbursement from Medicare.

East South Central region has **low confidence** in access to capital for equipment.

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<td>Will maintain/grow as a profit center</td>
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<tr>
<td>Composite score across all areas</td>
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The East/West South Central regions have very low confidence; while the other regions have low confidence about receiving adequate reimbursement from Medicare. The East South Central region has low confidence in access to capital for equipment.

East and West North Central regions have very high confidence; while the East South Central has extremely high confidence that internal operating and staff costs will remain constant. East North Central, West South Central, and Mountain regions have very high confidence in growing as a profit center.

Hospitals with 300 or more beds are more confident in growth of diagnostic/interventional radiology and in growing as a profit center than hospitals with fewer than 100 beds.

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.

Summary
Uncertainty / Concerns about ACA and Healthcare:

- With a new President being sworn in not sure of direction with reimbursements.
- I believe there is significant uncertainty around healthcare with the new leadership in Washington. This is causing organizations to sit on cash reserves until we can learn what the future holds.
- Tougher rules from Medicare will impact our bottom line.
- I feel the changes made in the political arena will directly impact every aspect of the business arena.
- Not for the next 3 months. ACA changes for a longer period raises concerns.
- The concerns that are at top of mind is the possibility of repeal and/or replacement of Obamacare.
- With a major change on the political landscape, I am optimistic to a degree for the overall growth of the nation, but am not as optimistic with the state of healthcare. With the talk of the potential dismantle of Obamacare, there needs to be a solid plan in place which will spell how the changes to the many will be affected. In essence, a wait and see approach...
- I feel the upbeat with Trump coming to office. I feel that our hospital is thinking unconventionally and will be getting more cash payments for diagnostic procedures.
- Continued reimbursement limits below cost of providing service, now coupled with uncertainties over the future of healthcare insurance options / availability continue to adversely impact revenue and investment opportunities for growth.
- Looming changes to Healthcare related to political environments.
- Healthcare is at a very questionable junction, politically. It will take some time to see exactly what effects will be seen by the new presidency.
- Just waiting to see how our political transition completes with the changes it will bring.
- With the Presidential change we will not be making any changes until we see how the affordable care act will be changing.
- Currently, administrative costs rise while reimbursement continues to decline and adjustments rise. There is added uncertainty about national healthcare policy and the fate of the ACA and all associated aspects.
- I see ACA getting cut and the hospital at least got a little reimbursement. Medicare reimbursement was significantly reduced in imaging to help fund the ACA and I don't see the Gov. giving any of that back.
Other Comments:

- I feel there is still strong growth in our market, but reimbursement from Medicare is very low.
- Volumes have leveled off from a 2 year rise. Interventional continues to be a challenge on reimbursement.
- Overall volumes continue to flatten out with the biggest challenges being the pre-certifying of the higher priced studies like MRI and Cardiac echo. High deductible plans and higher co-pays are also a detriment to imaging growth.
Other Comments Continued:

- Our common practice as a health system is to start the new year looking to see what can be cut from an expense management position - supplies / services while at the same time working on capital equipment needs.
- Tomosynthesis Mammography unit approved for purchase/install in next 3 months. PACS and RIS upgrades approved for purchase/implementation in next 3 months.
- Our system does not hold to strict quarterly projections. The focus is on an annual perspective along with a 2 year capital cycle.
- Our organization is very pro Imaging - we have either replaced our upgraded all of our equipment (CT, US, XR) and will be budgeting for a new women’s center for late 2017. Nuclear Medicine/CT was new in 2013. Our small community is growing and has excellent health care services that more people are utilizing.
- Too little capital to reinvest in growing technologies.
- Capital and operational budget set for next year. no capital and marginal to no growth projections.
- I see staff costs increase due to falling behind with our competition and an increase in associate turnover. Should have access to some capital $$s to replace our 16 slice scanner (not XR29) compliant.
- We are now in our third fiscal quarter which is typically when capital funds are on hold except for critical items. Interventional radiology is part of a master plan for expansion which will include funding for new IT infrastructure.
- Looking at a PACS upgrade and expanded remote reading services.
- First time in ten plus years we will receive two new medial apparatus DR.
- Facility solidified full asset merger; therefore, there is more access to investment dollars.
- Corporate has become very restrictive with capital for any projects/equipment.
- Getting a new CT scanner in march or April 2017.
- We have funding for several capital purchases this fiscal year and are currently evaluating equipment for purchase.
- I am not sure if this is consistent across all of the imaging departments or if its because we are a nonprofit organization but it seems every year capital is tighter and tighter. This makes it very difficult to continue to keep up with current technology.
Other Comments Continued:

- We invested in new biopsy equipment that has already made a positive impact on our interventional volume numbers. We anticipate this volume to grow as other referring physicians become aware.
- General imaging volumes at our site continue to decline - capital funds have been frozen at our system and not released yet
- Intervenational radiologist has been on board for 6 months and has worked diligently to get referrals
- Historical data reveals that 1st Qtr volumes are typically soft due to patients having to begin a new year deductible. This tends to lead most of their decision making on whether to have elective procedures completed or not. Most elect to wait until the problem worsens.
- With the addition of new hospital employed physicians we should experience better referrals
- We are expanding all our service lines, but due to Radiologist coverage it has been a slow process
- Growth overall is somewhat flat. Isotope expenses are increase almost 10%.
- This year we have an aggressive plan to replace aging equipment with the focus on growing IR and outpatient imaging
- Volumes have been flat over the past 6 months. Various supply expenses are going up in 2017. Staff costs are increasing in 2017 based on union contracts.
- Currently putting in 3D tomosynthesis. I expect to grow the number of mammograms and mammography procedures.
- Our IR department has been designated as the IR hub for our region. Therefore, we will be providing services for three of our sister hospitals. General Imaging volumes should continue to remain constant or decline slightly.
- We have been seeing moderate growth over the past 2 years
- Based upon the past two years, we are maintaining our volume in imaging services but not growing. I expect the first quarter to be slow due to insurance updates and higher deductibles.
- Historically the first quarter of the year is very slow as patients are faced with new deductibles.
Year-to-year analysis review
Q2-2015 through Q1-2017

**Results** are now shown for Q2 2015 through Q1 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.
# Year-to-year analysis review

Q4-2016 through Q1-2017

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score Mean</th>
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<td>Q4 2016</td>
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<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>115</td>
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<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>72</td>
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<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>128</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>129</td>
</tr>
<tr>
<td><strong>Composite score across all areas</strong></td>
<td><strong>106</strong></td>
</tr>
</tbody>
</table>

No statistically significant differences in confidence for any of the MICI scores between Q4 2016 and Q1 2017.
Year-to-year analysis review
Q2-2015 through Q1-2017

Average MICI Scores

TRENDING:
Receiving adequate reimbursement has higher confidence in Q1 2017 compared to Q1 2016. No significant differences in all areas from Q4 2016 to Q1 2017.
Year-to-year analysis review
Q2-2016 through Q1-2017

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

Trend Summary

Overall: No change in confidence

Under 100 beds: Higher confidence in receiving adequate reimbursement

100 to 299 beds: No change in confidence

300 or more beds: No change in confidence

In aggregate, No changes in MICI between Q1 2017 and Q2 2015.

Higher confidence in Q1 2017 compared to Q2 2015.

No changes in MICI between Q1 2017 and Q2 2015.

No changes in MICI between Q1 2017 and Q2 2015.
Study & report have been conducted & brought to you courtesy of:
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 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: Q2-2015 through Q1-2017 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.
Under 100 beds: Receiving adequate reimbursement have higher confidence in Q1 2017 compared to Q2 2015. No changes in MICI between Q1 2017 compared to Q4 2016.
Appendix: Q2-2015 through Q1-2017 results

100 to 299 beds: No changes in MICI between Q1 2017 and Q4 2016. No changes in MICI between Q1 2017 compared to Q2 2015.
Appendix: Q2-2015 through Q1-2017 results

300 or more beds: No changes in MICI between Q1 2017 and Q4 2016. No changes in MICI between Q1 2017 compared to Q2 2015.

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
Appendix: Q2-2015 through Q1-2017 results

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

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

Back to Hospital bed size summary
Appendix:
Q2-2015 through Q1-2017 results

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

<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>2nd quarter 15</td>
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<td>3rd quarter 15</td>
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<tr>
<td>4th quarter 15</td>
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<td>1st quarter 16</td>
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<tr>
<td>2nd quarter 16</td>
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<td>4th quarter 16</td>
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<tr>
<td>1st quarter 17</td>
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### Appendix: Q2-2015 through Q1-2017 results

#### Average MICI Scores

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<td>1st quarter</td>
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</tbody>
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*Internal operating and staff costs will remain constant: Hospital bed size*

Back to Hospital bed size summary
Appendix: Q2-2015 through Q1-2017 results

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

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

Back to Hospital bed size summary
Appendix: Q2-2015 through Q1-2017 results

Average MICI Scores

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

Quarter

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Back to Hospital bed size summary