HIE ROI for the Ambulatory Physician Practice

Part I: Understanding the Value of Health Information Exchange to the Ambulatory Practice

The potential for return on investment (ROI) through participation in a health information exchange organization (HIO) varies between ambulatory practices. This HIMSS HIE inPractice series is designed to facilitate the identification and tracking of ROI specific to an individual physician practice’s needs and resources.

Differences in ROI

ROI that a physician may derive through participation in an HIO will vary depending upon the specific HIO services used by the practice, and by the information technologies the practice has implemented.

HIO Services

The type and scope of HIO services available to a physician practice will directly impact ROI. Although significant deployment has occurred through public, state-level and enterprise (private) HIOs, the ROI a physician practice will see through HIO involvement is dependent upon several factors, including:

- the practice’s geographic location,
- the availability of an HIO in their region, and
- the specific service offerings of that HIO, including training and support for participants.

Thanks to federal funding from HITECH,1 state-level HIOs across the country have established a baseline of service offerings, but public and private HIO services can vary greatly.

Individual Practice Information Technologies

Individual practice technology environments may impact the degree of ROI that may be achieved through the use of HIO services. The physician’s information technology environment will directly impact the ease and cost of implementing and utilizing HIO services, particularly in regard to the technical requirements to access services and the ease of incorporating HIO services into existing practice operations and workflows. For instance, although there has been great advancement in the adoption and deployment of electronic health records (EHRs), many practices are still using paper-based medical records, or some combination of paper records and EHRs.

In addition, experience has shown that some benefits may be realized within the first few weeks of working with an HIO (i.e., hard benefits), while others are realized over a longer period of time (i.e., soft

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1 State Health Information Exchange Cooperative Agreement Program. The Office of the National Coordinator for Health Information Technology. U.S. Department of Health & Human Services.
benefits). This is because HIOs are in the process of identifying and implementing additional services and expanding stakeholders and participants. As the HIO advances, likewise the services a physician practice may access will expand, providing greater benefit to the participating physician practices and impacting overall ROI.

**Calculating ROI**

There are many approaches and methods for a physician practice to use when calculating ROI, but the key with any approach is that it should reflect the unique characteristics of both the practice and the HIO. Physicians should evaluate ROI formulas with consideration for the amount of money that will be earned, including expenditures avoided, based on the total cost of participating in an HIO over a selected time period.

The following are examples of tangible (or direct) ROI calculations that may be used.

![Fig.1: ROI Calculation (option 1)](image1)

![Fig.2: ROI Calculation (option 2)](image2)
In order to effectively use this type of ROI calculation, the physician practice must be able to clearly identify specific pieces of information reflective of their operations, workflow, tangible/direct costs and intangible/indirect costs.

The table below provides a guide for identifying specific practice-related information to be used with various ROI calculations:

<table>
<thead>
<tr>
<th>Example Benefits for ROI Calculation</th>
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<tbody>
<tr>
<td><strong>Time Benefits</strong></td>
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<tr>
<td>Time saved:</td>
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<tr>
<td>o documenting historical patient information</td>
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<tr>
<td>o managing referrals and coordinating between providers</td>
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<tr>
<td>o prescription management activities</td>
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<tr>
<td>o staffing efficiency gains throughout the practice</td>
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<tr>
<td>Increased capacity to <strong>expand patient numbers</strong> due to time saved</td>
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<tr>
<td>Increased revenue with <strong>increase in patient volume</strong> over the same work period</td>
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<tr>
<td><strong>Cost Savings / Revenue Benefits</strong></td>
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<tr>
<td>Supply cost savings through reduction in paper, folders, and additional administrative costs</td>
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<tr>
<td><strong>Discounts on malpractice liability insurance</strong> as a result of potential reduction in injuries and related malpractice claims</td>
</tr>
<tr>
<td><strong>Transcription cost savings</strong></td>
</tr>
<tr>
<td>Potential reduction in or <strong>avoidance of technical costs</strong>, such as the implementation of multiple interfaces</td>
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<tr>
<td><strong>Patient Care Benefits</strong></td>
</tr>
<tr>
<td><strong>Improved quality of patient care</strong> through value assigned through clinical performance measures (e.g., process, outcomes, patient experience, structural and composite measures)**²</td>
</tr>
<tr>
<td><strong>Improved patient health management</strong></td>
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<tr>
<td><strong>Improved clinical decision-making</strong> with easier access to relevant medical histories</td>
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<tr>
<td>Improved ability to <strong>participate in clinical trials</strong></td>
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<tr>
<td><strong>Easier performance reporting</strong></td>
</tr>
<tr>
<td><strong>Improved coordination of care</strong> between providers</td>
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</tbody>
</table>

² E.g., National Quality Forum *ABC’s of Measurement*  
Determining Benefits and Value of an HIO to the Physician Practice

For many physicians, the first contact with an HIO may be an invitation to become a stakeholder in a new or forming HIO. Others may get engaged with existing HIOs that can demonstrate a sound track record of activity. Some HIOs may offer initial services to encourage physician participation, while others will invite the practice to get involved first in order to define which services are most meaningful to the physicians. Regardless of how the introductions occur, physicians must actively seek information that will clarify the potential benefits to their practice through participation in an HIO.

The remainder of this ROI series provides information on questions that may be asked by a physician practice evaluating HIO participation. Continue to Part II for questions that help to identify workflow benefits through the use of HIE services.
Acknowledgements

Primary Author

Marie Richards, Ed.D., PMP
TMF Health Quality Institute
marie.richards@tmf.org

Contributing Authors

Balaiah Balasubramani
GE Healthcare
balasubramani.balaiah@ge.com

Martha Dameron, RN, MSN, FHIMSS
Dameronw@comcast.net

R. Lenel James, MBA, CPHIT, CPEHR
Blue Cross and Blue Shield Association
lenel.james@bcbsa.com

Nancy Lush
Lush Group, Inc.
nancy.lush@leisoftware.com

Helena Taylor
MedAllies
htaylor@medallies.com

Chris Clark, MBA
State of West Virginia
Chris.R.Clark@wv.gov

Jeff Hoy
Huntsville Hospital
Jeff.Hoy@hhsys.org

Robert Levy, MA, PMP
ASM Research, Inc.
Robert.Levy@asmr.com

Anthony Nuzzo
Prosch Consulting
anthony.nuzzo@proschconsulting.com

Wayne Thompson
The Commonwealth Medical College
wthompson@tcmedc.org

HIMSS Staff

Pam Matthews, RN, MBA, CPHIMS, FHIMSS
Senior Director, Regional Affairs – HIMSS
pmatthews@himss.org

Julie Moffitt
Coordinator, Regional Affairs – HIMSS
jmoffitt@himss.org

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