The past five years have been a time of great uncertainty for healthcare executives. The migration to new payment methodologies, the compression of fee-for-service rates, an influx of newly insured patients, and a dizzying array of legislative “carrots” and “sticks” have combined to form a perfect storm, rendering the status quo untenable. In this frenzied environment of dwindling margins and regulatory confusion, health systems have begun to find new growth opportunities by experimenting with investment and innovation programs, or accelerators.

This article evaluates the models accessible to health systems that are interested in launching such programs. Throughout, it draws on the perspectives of executives from several organizations that are at the forefront of innovation. For example, Rich Roth, chief strategic innovation officer for Dignity Health, notes, “Providers all have a responsibility to continually innovate to offer better value to patients. Dignity Health’s focus is to blend our clinical expertise with the expertise that novel entrepreneurial companies have to offer. We want to help scale innovations to truly benefit patients with demonstrated results.” Equipped with the insights of these experts, we can identify a set of implications for other healthcare leaders.

Health systems generally seek to achieve four principal goals when considering whether to undertake investment and innovation opportunities (Exhibit 4.1):

1. **Financial returns:** Many organizations establish investment

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**About the Author**

Ezra Mehlman is a vice president at Health Enterprise Partners (HEP), a healthcare information technology and services-focused growth equity fund whose capital comes from some of the largest hospital systems, healthcare insurance companies, and pharmaceutical firms in the United States. By partnering with leading healthcare organizations, HEP is afforded a unique window into the rapidly evolving priorities of those responsible for shaping the direction of the industry. In turn, HEP is able to identify innovative companies that map to the executive playbook. Previously, Mehlman spent several years as a strategy consultant focused exclusively on the provider market, first at The Advisory Board Company and then at Booz Allen Hamilton. He currently serves as a director of InDemand Interpreting, CenterPointe Behavioral Health System, Applied Pathways and as a board observer of Evariant. He holds an adjunct appointment at Columbia University, where he co-teaches the healthcare investment and entrepreneurship course. Mehlman holds a master of business administration degree from Columbia University and a bachelor’s degree in history, cum laude, from Washington University in St. Louis.
**FUTURESCAN SURVEY RESULTS:**
The Rise of Accelerators

An IT accelerator, sometimes referred to as an “incubator” or “venture lab,” is a program that promotes the growth of private technology companies. This program may encompass the commercialization of internal ideas, technology pilot programs, direct investments in early-stage companies, investments in venture capital or private equity funds, and partnerships with other like-minded institutions to support the exchange of innovation.

How likely is it that the following will be seen in your hospital by 2021?

<table>
<thead>
<tr>
<th></th>
<th>Very Likely (%)</th>
<th>Somewhat Likely (%)</th>
<th>Somewhat Unlikely (%)</th>
<th>Very Unlikely (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACHE</strong></td>
<td>8</td>
<td>21</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td><strong>SHSMD</strong></td>
<td>23</td>
<td>26</td>
<td>34</td>
<td>17</td>
</tr>
<tr>
<td><strong>Both</strong></td>
<td>11</td>
<td>22</td>
<td>35</td>
<td>31</td>
</tr>
</tbody>
</table>

Your hospital will be invested in a healthcare venture capital or healthcare private equity fund.

<table>
<thead>
<tr>
<th></th>
<th>Very Likely (%)</th>
<th>Somewhat Likely (%)</th>
<th>Somewhat Unlikely (%)</th>
<th>Very Unlikely (%)</th>
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</thead>
<tbody>
<tr>
<td><strong>ACHE</strong></td>
<td>14</td>
<td>30</td>
<td>32</td>
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</tr>
<tr>
<td><strong>SHSMD</strong></td>
<td>11</td>
<td>20</td>
<td>34</td>
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</tr>
<tr>
<td><strong>Both</strong></td>
<td>14</td>
<td>30</td>
<td>32</td>
<td>24</td>
</tr>
</tbody>
</table>

Your hospital will have a healthcare IT accelerator in place.

<table>
<thead>
<tr>
<th></th>
<th>Very Likely (%)</th>
<th>Somewhat Likely (%)</th>
<th>Somewhat Unlikely (%)</th>
<th>Very Unlikely (%)</th>
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<tbody>
<tr>
<td><strong>ACHE</strong></td>
<td>8</td>
<td>12</td>
<td>30</td>
<td>50</td>
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<tr>
<td><strong>SHSMD</strong></td>
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<tr>
<td><strong>Both</strong></td>
<td>11</td>
<td>20</td>
<td>34</td>
<td>35</td>
</tr>
</tbody>
</table>

Your hospital will acquire or develop one or more healthcare IT companies.

Note: Percentages may not total to exactly 100% due to rounding.

**The Rise of Accelerators: What Practitioners Predict**

Hospitals are not likely to invest in venture capital or healthcare private equity funds. Overall, about two-thirds (66 percent) of practitioners responding to the survey consider it unlikely that their hospital will invest in a healthcare venture capital or private equity fund within the next five years. However, respondents receiving the survey from ACHE and SHSMD differed in their responses. A higher proportion of SHSMD respondents (49 percent) than ACHE respondents (29 percent) predict that their hospital will invest in such funds.

continued on pg. 23
initiatives to drive financial returns. By taking equity stakes in early- and growth-stage companies and growing revenue through customer relationships, health systems can generate new sources of income that are not subject to the reimbursement pressures affecting the core business of delivering medical care.

2. **Operations improvement:** Innovation programs offer providers a means to identify a pipeline of promising companies that can help them upgrade operations, reduce medical costs, improve outcomes, and expand access to care.

3. **Brand enhancement:** Investment programs can serve as vehicles to enhance brand integrity in an increasingly competitive landscape through differentiation and expansion of market reach.

4. **Foster innovation:** Perhaps most significant, commercializing new ideas enables organizations to cultivate an innovation-focused culture.

Elaborating on these points, Tom Thornton, executive vice president of North Shore Ventures, says, “Our mission is to identify and invest in novel technologies and business models that have the potential to generate revenue, improve patient care, and advance North Shore’s growth and the future of our industry. To do this, we define innovation broadly—in terms of what it is, where it comes from, and who’s responsible for it—and we embed innovation in every part of our business. Defining innovation so broadly has important benefits. The simple fact is that we create many more opportunities because we’re looking in more places, and we’re working with more partners.”

**Models of Health System-Based Investment and Innovation Programs**
Depending on a given health system’s risk appetite, resource commitment, and desired return, a variety of approaches are available (Exhibit 4.2):

- **Accelerator investments:** A number of third-party accelerators offer partner organizations access to—and a small equity stake in—a multitude of early-stage companies. A well-publicized investment in an internal accelerator program may confer branding benefits, in addition to providing interaction with other health systems that have made similar commitments.

- **Innovation centers:** Developing an in-house innovation center enables organizations to generate revenue from internal intellectual property (IP). Such a center may take the form of an internal accelerator, whereby new products are researched, developed, and launched using a health system’s own resources. A successful center typically incorporates the following:
  - Mining mechanisms to identify ideas with commercial potential
  - Screening processes to filter the most compelling concepts
  - Matching components to pair prospective entrepreneurs with the staffing, financial, and clinical resources needed to bring ideas to market

- **Warrant deals:** Several organizations have developed warrant programs, in which

**Practitioners are divided about the prevalence of hospital-based IT accelerators.** More than half (56 percent) of survey respondents do not believe that by 2021 their hospital will have an IT accelerator in place. A little less than half (44 percent) predict that their hospital will have an IT accelerator in place.

**Most hospitals will not invest directly in healthcare IT companies.** Sixty-nine percent of practitioners surveyed do not think their organization will invest directly in health IT companies within the next five years.

**Most hospitals will not acquire or develop healthcare IT companies.** Most (80 percent) of those responding to the survey do not believe their hospital will acquire or develop one or more healthcare IT companies by 2021.
the health system picks up an equity percentage in a company in conjunction with signing a commercial agreement. This approach provides executives with a low-risk means to share in the upside while minimizing the downside financial risk.

- **Fund investments:** This option offers the opportunity to invest in a portfolio of companies while not being tied to the fate of any single business. It also allows organizations to benefit from the due diligence and investment management resources of a fund, rather than assuming this burden themselves.

- **Direct investments:** Increasingly, health systems are making direct equity investments in healthcare information technology (IT) and service firms to leverage commercial relationships with these vendors. While representing the biggest possible financial return, direct investments also carry the greatest amount of risk because financial returns are linked to one company. Aaron Martin, senior vice president of strategy and innovation for Providence Health & Services, describes the experience of operating a $150 million dedicated venture capital fund: “The fund is highly integrated into our innovation agenda and works closely with digital and innovation teams that are making large investments in software engineering and new consumer-health business models. We generally seek to make direct equity investments in early- to mid-stage businesses where Providence is committed to developing a strategic relationship. We believe that such investments strengthen our alignment with portfolio companies because we strive to help them hone more effective products and navigate the challenges of deploying technology in healthcare provider organizations.”

- **Co-invest with sponsor:** By co-investing in healthcare companies alongside a fund, health systems can leverage the due diligence and deal execution resources of an institutional investor while gaining access to the equity upside that accompanies direct investments. These opportunities frequently take the form of an opening or an extension to an institutional funding round for a select “strategic” to join the syndicate. In conjunction with a co-investment, health systems may implicitly or explicitly commit to pursuing a commercial relationship with the target company.

Of course, these models are not mutually exclusive. Sophisticated organizations will typically apply a multipronged strategy in operating an investment and innovation program—featuring, for example, internal IP commercialization alongside external investment activity.

Emblematic of this diversified approach is Intermountain Healthcare. Bert Zimmerli, the health system’s chief financial officer, says, “We don’t see innovation as optional. To deliver on the promise of helping people live the healthiest lives possible in an era of population health management, innovation is essential. In the past five years, we recognized the need to go beyond the status quo and begin implementing new programs to further liberate innovation from within. We also recognized that it takes dedicated capital to help ideas come to life, so we created an innovation fund to support these efforts now and in the years ahead. So far, the feedback from innovators is positive, generating a lot of goodwill with physicians and other caregivers in our ranks.”

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**Goals of Strategic Healthcare Investing**

<table>
<thead>
<tr>
<th>Financial Returns</th>
<th>Operations Improvement</th>
<th>Brand Enhancement</th>
<th>Foster Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure a favorable financial return by taking an equity stake in a company with which the system has a relationship</td>
<td>Leverage portfolio companies to solve the system’s challenges</td>
<td>Create direct and indirect value via both brand extension and association with other market players</td>
<td>Provide a window into emerging innovations and gain a top-down look on emerging trends</td>
</tr>
</tbody>
</table>
Intermountain has long held the view that innovation can lead to better care and lower costs. For example, we’ve partnered with wireless sensor companies to analyze patient data in new ways that have led to a sensor-based surgical ambulation program that is shortening lengths of stay and lowering readmissions for our patients.”

**Implications for Healthcare Leaders**

The evolving landscape of innovation and investment programs has a number of implications for healthcare leaders. A new paradigm of health systems working with early-stage companies has emerged. While the features of innovation and investment programs vary widely across organizations, all mandate a new mode of working with early-stage companies. The prohibitively long sales cycles these businesses customarily face when selling in a healthcare setting represent a major deterrent for entrepreneurs attempting to penetrate this segment. In many ways, the barriers to sales represent barriers to innovation. Breaking down these obstacles will require a systematic method of screening companies against organizational objectives and identifying the appropriate business unit champions to help them reach decision makers. This relationship needs to work both ways; health systems should be rewarded for the effort and risk associated with supporting early-stage businesses.

**An internal resource commitment is essential.** Undertaking an investment and innovation program in earnest requires both executive sponsorship and a dedicated financial and personnel commitment. If the intention is to transform a health system’s core business model for the future, then executives would be well served to treat the program as a priority. Rich Adcock, executive vice president of Sanford Health, offers the following perspective: “Sanford Frontiers is designed to ‘improve the human condition’ through the development of new devices and therapeutics that improve quality and create nontraditional revenue. By providing resources for our physicians and scientists, we pave the path for their entrepreneurial pursuits. In less than three years, Frontiers supported the development of a fully licensed medical device, moving from the concept stages through the patent process and clinical trials to taking the product to market. Frontiers also supports the development of consumer health products and programs. For example, the organization’s weight loss program has grown to include 25 stores in ten states serving more than 20,000 members. Over a short period, our investment in innovation has paid dividends, both monetarily and in a culture shift among our professional teams.”

**Innovation program structure depends on goals and risk appetite.** With a multitude of available options, healthcare leaders must prioritize and decide which investments are most appropriate for their organization’s risk appetite and

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**Exhibit 4.2**

**Universe of Investment Options and Their Trade-Offs**

<table>
<thead>
<tr>
<th>Risk Level and Resource Commitment</th>
<th>Potential Return</th>
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<tbody>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
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- **Fund Investments**
- **Co-invest with Sponsor**
- **Direct Investments**
- **Innovation Centers**
- **Warrant Deals**
- **Accelerator Investments**

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return goals. Structuring warrant deals with companies or investing in an external accelerator presents a reasonably low risk of losing capital, but these approaches do not offer substantial upside potential. Conversely, making direct investments in companies or rolling out an internal IP commercialization effort comes with higher levels of both financial risk and return. Exhibit 4.3 outlines a number of factors executives should consider in launching their programs.

Revenue diversification is the name of the game. In many ways, the rise of health system investment and innovation programs has paralleled the rollout of risk-based payment models. Healthcare reform has galvanized executives to think more critically about margin enhancement strategies. While some providers have been laser focused on doing anything they can to maximize profitability under the fee-for-service system, others understand that surviving in a new world, in which health systems are assuming significant financial risk for a patient’s treatment, will require new ideas, products, and sources of revenue.

Conclusion
A market scan shows widespread agreement among leaders that innovation is no longer optional for health systems. The question thus becomes how to develop and implement an investment and innovation strategy that meets an organization’s distinctive financial, strategic, and marketing goals while staying within internal resource constraints. This article provides a high-level evaluation of the universe of options accessible to providers and shares the perspectives of several nationally renowned experts in the field.

While the Futurescan survey data provide some indication of where executive attitudes lie—33 percent predict they will invest in a venture capital or private equity fund by 2021, and nearly half (44 percent) believe they will have an IT accelerator in place in that time frame—the right choice for any given organization depends on the trade-off between risk and return. Although few organizations have “cracked the code” on strategic investing and innovation, studying the best practices of those that have done so is an important exercise for any health system leader who stands on the precipice of launching an internal investment and innovation program.

Exhibit 4.3
Considerations in Launching Investment Programs

What are our investment goals and risk appetite?
- How do we weigh capital appreciation versus obtaining greater access to new technologies and ideas in structuring our program?
- What is our investment horizon?
- Are we comfortable taking on greater downside risk in exchange for a higher potential return?

How are we sourcing and evaluating new opportunities?
- Is our current pipeline sufficient?
- How do we best mine internal intellectual capital?
- Are we deploying internal resources efficiently and appropriately?

How will the program be governed and staffed?
- What will the metrics be for defining program success, and how will reporting be coordinated?
- Who will maintain ultimate oversight over the program?
- Will we repurpose existing team members, or will we recruit and build a full internal investment team?

How can we differentiate our program?
- With many intelligent investors chasing the same companies, how can we provide something uniquely valuable?
- How do we drive commercial value for prospective portfolio companies internally?