Venture healthcare investments and returns skyrocket

The overall boom in healthcare propelled fundraising, investing and exits in 2014 to the highest level in several years, eclipsing our bullish outlook from a year ago. The number of IPOs more than doubled over 2013, and hit a 10-year high. Robust returns have accelerated the cycle; limited partners are enthusiastic and fundraising increased 56 percent in a single year, the most tangible sign in a decade that confidence in healthcare innovation is extremely high.

While we predict the strong fundraising will help fuel the investment cycle for another few years, IPO activity in 2015 likely will dip slightly. Other trends we examine in this report include the new role of non-VC investors in helping healthcare companies generate successful IPOs, the growing focus on early-stage biopharma companies and the emerging promise of medical device and diagnostic/tools companies.

Written by

Jonathan Norris
Managing Director
Silicon Valley Bank
M 650 575 1377
jnorris@svb.com
@jonnysvb

Kristina Peralta
Senior Associate
Silicon Valley Bank
T 415 764 3152
kperalta@svb.com
Table of contents

3  Key findings and forecasts

4  Surging venture fundraising and investment drive healthcare innovation
4  Healthcare drops slightly as percentage of total venture investment
5  Healthcare venture fundraising and investment exceed expectations
6  Why the 2014 boom took us by surprise

7  Analysis: What is driving investors
7  Active biopharma investors focus on early rounds and quick exits
9  Smaller investors and angels see opportunities in device
10 Dx/tools companies find support from biopharma seeking drug development tools
11 Non-VC investors flock to companies preparing for IPOs

12 White-hot IPO market and big exit M&A lead to impressive returns
12  “First Movers” reap biggest rewards
14  Strong biopharma exits propel faster investment cycle
14  Big exit M&A activity rebounds in all sectors

16 Analysis: What is driving IPOs and big exit M&A
16  Early-stage biopharma activity leads exits parade
18  Device company exits rebound with solid results
19  Later-stage dx/tools companies attract large investor interest

20 Focus on big exit M&A: What is driving value creation
20  Capital efficiency is key to positive returns
21  Biopharma: Large equity round doesn’t guarantee top returns
22  Device: Sustainability requires capital efficiency

23 Conclusion
2014 Key findings

‣ Healthcare venture fundraising surged 56 percent over 2013, reaching its highest level since 2008 and signaling that confidence in the industry is very high.

‣ Healthcare venture investment also grew significantly, reaching $8.6 billion in 2014, a 30 percent increase over 2013.

‣ Non-VC investors flocked to companies ready for an IPO, providing “top-up financing” and supporting these companies in very successful IPOs.

‣ Led by early-stage biopharma, potential distributions from VC-backed IPOs and big exit M&A rose 60 percent in one year, topping $20 billion and marking a 10-year high.

‣ The speed to exit for biopharma IPOs and big exit M&A quickly accelerated.

‣ Device saw big exit M&A increase after a two-year decline, and IPO activity heated up.

‣ Large biopharma showed new interest in late-stage dx/tools, targeting investments to develop better drug discovery tools and companion diagnostics.

‣ SVB analysis of factors leading to healthy exit multiples found capital efficiency was key.

Key forecasts for 2015

‣ The second consecutive year of exceptional IPO and big exit M&A activity produced impressive returns, and spurred a faster fundraising-investment-exit cycle. We expect strong fundraising and investment to continue.

‣ With plenty of new capital to invest, company creation should equal or surpass 2014.

‣ The successful strategy of non-VC investors coming in late with “top-up” financing that leads to a quick exit will continue through 2015, and drive up potential distributions.

‣ The option of companies to go public, particularly in biopharma, will decline but that will drive up M&A activity. We can expect another year of stellar potential distributions, though not at 2014 levels.

‣ The opening IPO window for device, combined with the potential for big device companies to acquire early-stage companies at a discount, should make for a strong 2015.

‣ Dx/tools are expected to see good returns but challenges remain. Tech/big data giants are starting to invest in dx/tools — and many may have significant acquisition strategies in the sector.
Surging venture fundraising and investment drive healthcare innovation

Healthcare venture activity is benefitting from the overall hot venture industry.

Healthcare drops slightly as percentage of total venture investment

Healthcare venture investment in biopharma, device, and dx/tools companies accounted for 18 percent of all venture capital dollars invested in 2014, compared to 22 percent a year earlier (Exhibit 1). The dip resulted from the exponential growth in venture investment overall, not from a decline of interest in the sector. In fact, healthcare venture investment rose 30 percent to $8.6 billion, the highest level in seven years.

Exhibit 1: Healthcare as Percentage of Total Venture Investment

<table>
<thead>
<tr>
<th>Year</th>
<th>Total VC Dollars ($B)</th>
<th>% Biopharma</th>
<th>% Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>$99</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>2001</td>
<td>$38</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>2002</td>
<td>$21</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>2003</td>
<td>$19</td>
<td>19%</td>
<td>8%</td>
</tr>
<tr>
<td>2004</td>
<td>$22</td>
<td>19%</td>
<td>8%</td>
</tr>
<tr>
<td>2005</td>
<td>$23</td>
<td>16%</td>
<td>10%</td>
</tr>
<tr>
<td>2006</td>
<td>$27</td>
<td>17%</td>
<td>11%</td>
</tr>
<tr>
<td>2007</td>
<td>$31</td>
<td>17%</td>
<td>12%</td>
</tr>
<tr>
<td>2008</td>
<td>$30</td>
<td>15%</td>
<td>11%</td>
</tr>
<tr>
<td>2009</td>
<td>$20</td>
<td>19%</td>
<td>13%</td>
</tr>
<tr>
<td>2010</td>
<td>$23</td>
<td>17%</td>
<td>10%</td>
</tr>
<tr>
<td>2011</td>
<td>$28</td>
<td>17%</td>
<td>10%</td>
</tr>
<tr>
<td>2012</td>
<td>$27</td>
<td>16%</td>
<td>9%</td>
</tr>
<tr>
<td>2013</td>
<td>$30</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>2014</td>
<td>$48</td>
<td>12%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: PricewaterhouseCoopers and SVB proprietary data
Healthcare venture fundraising and investment exceed expectations

Healthcare venture fundraising surged 56 percent over 2013, reaching its highest level since 2008. This result represents extremely strong confidence in the industry. The total raised surpassed $6 billion, considerably higher than we had predicted in last year’s report.

Healthcare investment into companies also grew significantly, reaching $8.6 billion in 2014. Biopharma companies had the major share of that total, at $6 billion – the highest level since SVB started tracking the data in 2005.

Capital flow ratio returns to healthy levels

In 2014, dollars invested in healthcare rose 30 percent. The amount fundraised was up 56 percent. This hefty activity produced a capital flow ratio of 1.4x (capital invested in companies versus capital fundraised), the healthiest ratio in several years. SVB believes that a favorable capital flow ratio is between 1.3x and 1.6x, represented by the dotted lines in Exhibit 2.

Series A: Corporate investors support biopharma company creation

In 2014, corporate investors continued to play an active role in biopharma company formation with Series A investments. Biopharma Series A deals increased 35 percent over 2013 (Exhibit 3). Device and dx/tools Series A deals showed little change.
Why the 2014 boom took us by surprise

For the past few years, we predicted slightly declining investments in healthcare companies. This was based on the previously stagnant venture fundraising market — we felt that increased investment from non-VC investors and corporate venture arms could not keep up with the pace of company creation, and at some point overall investment would fall. That did not happen. Instead, the IPO and M&A exit markets have produced fantastic returns, and spurred renewed investment, particularly from non-VC investors. We examine this trend later in the report.

We expect increases in fundraising and investment levels will lead to a very active 2015, with a note of caution, however. When the window closes, and non-VC investors pull back, the industry could be left with a crowded private market and a lack of investors.

Exhibit 3: U.S. Company Formation: Deals and Investment in Series A

![Graph showing deals and investment in Series A for different sectors (Biopharma, Device, DX/Tools)]

Source: VentureSource, PitchBook, CB Insights and SVB proprietary data
**Analysis:**
**What is driving investors**

Rebounding investor confidence is speeding up the fundraising-exit cycle and freeing up more capital to invest.

**Active biopharma investors focus on early rounds and quick exits**

Successful biopharma big exit M&A and IPOs are leading to a stronger fundraising environment, hence there is more capital to invest. The renewed confidence in healthcare is accelerating the fundraising-investment-exit cycle. With capital available, venture firms invest in new companies and double down on existing deals in mezzanine rounds led by non-VC investors, with the hope of a quick M&A exit or IPO. Dollars typically reserved for existing company support can instead be used for new investments because those companies have taken advantage of the strong market to exit faster than anticipated. When the active investment cycle ends with a hot exit environment, investors are in a good position to raise another fund, and the cycle starts again.

The top five most active investors in biopharma invested in 50 percent more companies in 2013-2014 than they did in the prior two-year period (Exhibit 4).

Among the active new corporate investors is China-based Wuxi, which focused almost exclusively on early-stage U.S. biopharma investments in 2013-2014 (Exhibit 5).
Most biopharma indications showed increased investment activity (Exhibit 6); however auto-immune significantly outpaced other indications when measured year over year. Most of the auto-immune deals were outside the U.S. (OUS), and the majority had corporate venture support.

For the first time, we examined new investment activity based on company location. New biopharma investments were led by the Boston/Cambridge area, Northern California and Southern California (Exhibit 7). There also was substantial new-deal activity outside the U.S. The UK had the largest amount of international activity, ranking it fourth among all regions. We think the international investment focus indicates a strategy to tap the offshore profits held by big biopharma. Venture firms are domiciling new investments abroad to leverage offshore funds held by companies for partnerships, investment and M&A.

**New VC investments in auto-immune significantly outpaced other indications when measured year over year.**
Smaller investors and angels see opportunities in device

The number of active device investors has significantly declined in the last five years, and the types of investors have changed in the past two years. While some investors were able to close new funds, others were not. Still others decided to focus on biopharma or digital health. New Enterprise Associates (NEA) continues to lead device investing in new companies, but smaller groups, including BioStar, Emergent and angel groups such as Life Science Angels (L.S. Angels), are helping to shore up investor interest (Exhibit 8).

Looking at indications, investments in cardiovascular and neuro have tripled and interest in ENT has picked up (Exhibit 9).

California companies saw the most new biopharma investments, followed by companies located outside the U.S. (OUS) (Exhibit 10).
Dx/tools companies find support from biopharma seeking drug development tools

There is growing corporate interest in dx/tools companies. Half of the most active investors in dx/tools are corporate. Specifically, large biopharma companies are making investments in firms that develop companion diagnostics to monitor clinical trials and advance new technologies for drug discovery (Exhibit 11).

The focus in this sector leans to commercial-stage companies. In fact, more than half of 2014 Series A dx/tools deals were already generating revenues. As in the medical device industry, dx/tools startups must run lean and make more progress with less capital.

Dx/tools companies in Northern California and those outside the U.S. saw the highest number of investments. The most active countries outside the U.S. (OUS) were Germany with five deals and Israel with three deals (Exhibit 12).
Non-VC investors flock to companies preparing for IPOs

Crossover investors’ strategy to gain footholds in pre-IPO companies swells IPO wave.

In the past two years, we have seen the emergence of non-VC investors, particularly hedge funds, providing “top-up” financing to IPO-ready companies prior to entering the public markets (Exhibit 13).

These non-VC investors (many of whom are referred to as crossovers, based on their ability to invest both in the public and private markets) are focused primarily on biopharma and have benefitted from, and helped propel, the wave of IPOs in this sector. Their strategy is to get a foothold in the company prior to going public by providing later-stage financing, typically at a discount to the IPO. Companies view these investors as helpful because they tend to be less sensitive to higher company valuations than traditional venture investors, and they provide a sign of confidence to the public markets ahead of the IPO.

Non-VC investors see exceptional exit rates

The strategy has been extremely successful for the most active investors. The top 15 investors are responsible for 57 unique new lead investments in 2013-2014. Of those investments, 25 have achieved an exit as of February 2015: 21 IPOs and 4 M&A transactions. A 44 percent exit rate within two years from an initial investment is truly exceptional.

Companies that received investments from this group had more successful IPOs: Median pre-money valuations were 52 percent higher ($211 million vs. $139 million) and dollars raised at IPO were 48 percent higher ($96 million vs. $65 million) than their peers during the 2013-2014 IPO window.

In addition, six months post-IPO, these companies had a median value 20 percent higher than the IPO price, and the average value was more than 70 percent higher.

With this in mind, companies considering pre-IPO financing are actively seeking out these non-VC investors.

Based on the current success of non-VC investors, it is likely that biopharma companies ready for an IPO will continue to benefit. We think this activity also will start to spread to device and dx/tools, though the focus in those sectors likely will be on later-stage, commercial companies. We expect top non-VC investors to continue to dominate mezzanine fundings.

Exhibit 13: Most Active* New Non-VC Investors (2013-2014)

44% of these investments have gone public or been acquired during these two years

*Most active defined as top 15 non-VC healthcare investors based on new investments

Source: CB Insights and SVB proprietary data
White-hot IPO market and big exit M&A lead to impressive returns

Potential distributions from VC-backed IPOs and big exit M&A top $20 billion, highest returns in a decade.

“First Movers” reap biggest rewards

The number of IPOs at least doubled in each sector and rebounding big exit M&A soared 59 percent (Exhibit 14). This environment led to record high potential distributions in 2014, topping $20 billion (Exhibit 15). This is the largest return on investment measured since SVB began tracking the information a decade ago.

Potential distributions in 2014 outpaced 2013, the previous record year, by nearly 40 percent and were more than double any year between 2005 and 2012.

The growth in potential distributions was driven largely by biopharma, which accounted for 70 percent of healthcare IPOs in 2014. The upfront portion of big exits also produced the highest amount since we began tracking the data in 2005.

There is a lesson here: In our First Mover Advantage report published in 2012, we predicted that it was a great time to be investing in healthcare, despite lackluster investment numbers, because exit activity was trending up. Investors who got in then are reaping the rewards of an aggressive IPO market and a swell of M&A activity. Fueling the cycle, limited partners are reinvesting the capital distributions into new healthcare funds.

Exhibit 14: VC-Backed IPOs and Big Exit M&A (2005-2014)

<table>
<thead>
<tr>
<th>Year</th>
<th>Big Exit M&amp;A</th>
<th>VC-Backed IPOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>19</td>
<td>32</td>
</tr>
<tr>
<td>2006</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td>2007</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>2008</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>2009</td>
<td>22</td>
<td>3</td>
</tr>
<tr>
<td>2010</td>
<td>28</td>
<td>12</td>
</tr>
<tr>
<td>2011</td>
<td>35</td>
<td>7</td>
</tr>
<tr>
<td>2012</td>
<td>36</td>
<td>11</td>
</tr>
<tr>
<td>2013</td>
<td>27</td>
<td>37</td>
</tr>
<tr>
<td>2014</td>
<td>43</td>
<td>83</td>
</tr>
</tbody>
</table>

Source: Investment bank reports, VentureSource, PitchBook, press releases and discussions with life science professionals.
Exhibit 15: Potential Distributions* From VC-Backed IPOs and Big Exit M&A

*Definition of Potential Distributions

To determine potential distributions, we calculated big exit upfront payments assuming 75 percent of venture ownership at the time of sale and discounted all milestone payments to 25 percent. For IPOs, we calculated the last private valuation before raising money in the public market (pre-money IPO value) and based potential returns on 75 percent venture ownership.
**Strong biopharma exits propel faster investment cycle**

The number of IPOs for each sector — biopharma, device and dx/tools — was at least double that of 2013 (Exhibit 16). In early-stage biopharma, companies have the option to spurn M&A deals and instead raise significant cash in the public market to fund the next stage of clinical trials or commercialization ramp. Acquirers had to pay more to secure attractive assets of early- and late-stage biopharma companies or risk watching the company go to the public markets. Device IPOs increased five times over 2013, though unlike biopharma, the activity was focused on later-stage companies. A buoyant IPO market led to superb value creation and helped investors provide substantial returns back to limited partners — making it easier to raise their next funds.

Despite the very active IPO market, the median pre-money valuations and dollars raised at IPO decreased for all three sectors in 2014 (Exhibit 17). One possible explanation: With more companies completing IPOs in 2014, the quality of companies varied compared to earlier years.

**Big exit M&A activity rebounds in all sectors**

As the number of VC-backed IPOs doubled in 2014, big exit M&A also did very well, with a 59 percent increase in the number of deals. Every sector saw an increase in big exit M&A activity in 2014 (Exhibit 18).
Exhibit 18: VC-Backed Big Exit M&A

Source: Investment bank reports, press releases and discussions with life science professionals
Analysis: What is driving IPOs and big exit M&A

Strong investor confidence in healthcare is leading to quick exits.

Early-stage biopharma activity leads exits parade

The biopharma IPO boom had some interesting twists. While many people speculated that some of these companies may have been “long in the tooth,” later-stage venture deals, in fact the median time to exit for 2014 biopharma IPOs was less than six years. And 44 percent of these IPOs were in pre-clinical or Phase I trials for their most advanced asset, despite the clinical risk and expected long timeline to commercialization (Exhibit 19).

With big exit M&A deals, the median time to exit was a speedy 4.3 years from the close of Series A — the quickest we have seen. M&A activity, like IPOs, trended up for early-stage companies in 2014, with 56 percent of big exit M&A in pre-clinical or Phase I companies.
Looking at indications, oncology continued to chug along as the main focus of interest. CNS showed substantial activity (both big exit M&A and IPO) after an oddly quiet 2013. Activity in anti-infectives has picked up over the last few years, especially in the IPO market (Exhibits 20-22).

The swell in early-stage biopharma IPO activity is keeping the current IPO window open. Most of these companies have multiple products in their pipelines, and they are at an early stage, increasing the likelihood of advancing from pre-clinical to human trials or from a Phase I safety trial into a dosing trial. We see greater potential for positive news outweighing negative reports and diverse pipelines. As a result, we predict improving public investor confidence with each new IPO.
Device company exits rebound with solid results

Despite being out of the proverbial spotlight, device companies are performing well based on the number of exits, capital invested and companies created, as well as on the multiple of capital invested (a topic which is discussed later in this report) (Exhibits 23 and 24).

Device had a strong 2014, rebounding after a two-year decline in exits. There were 18 big exit M&A transactions, achieving a 10-year high.

While many people want to compare device directly with the biopharma sector, it is important to understand perspective. Consider that biopharma investors have deployed substantially more into companies since 2005, $47.5 billion compared to device at $27.5 billion. Biopharma also has created more companies, 684 Series A companies versus 463 for device. Bearing those differences in mind, device big exits compare favorably, producing 78 deals since 2009 versus 85 for biopharma. Thus, with about half as much capital invested, device big exit results are solid.
Device environment grows more competitive

While we are generally bullish on overall device M&A exit activity — and it should equal or surpass 2014 activity — the merger of two large acquirers (Medtronic and Covidien) could slow activity. The two companies pre-merger were responsible for a combined six of the 18 deals in 2014. Will post-merger integration shift focus away from acquisitions or will the newly created giant shore up sector competencies and seek out complementary opportunities?

Even without a clear answer, the trend lines point to a strongly competitive exit environment in device. With less capital and a smaller number of deals, the sector has a focused group of high-quality companies competing for investment dollars. Only the very top companies with the best innovation stories are getting funded. We think acquirers’ current focus on geographical growth in emerging markets can only go so far in satisfying investors’ demands for revenue growth. They must find innovative technologies, and this current crop of venture-backed device companies fits the bill.

We also believe there is a great opportunity for one or more big device players to fill their innovation gap by acquiring earlier-stage companies at an M&A discount. These are companies that are pending or post-FDA approval, but have not yet raised a commercialization round. These companies likely would be available at a reduced price, with a structure similar to biopharma M&A. Once one acquirer makes a move, it is likely that the others will follow, which would build on improving M&A trends.

Later-stage dx/tools companies attract large investor interest

Dx/tools big exit M&A and IPO activity increased substantially in 2014, with 10 M&A deals and seven IPOs — both represent 10-year highs since SVB has been tracking the data (Exhibit 25). This sector remains focused almost exclusively on later-stage companies. The acquirers in 2014 were quite diverse, including big pharma (3), big device (1), tools/testing (5) and an MDX Company (1).

In dx/tools, tech/big data giants (Google, Qualcomm, Amazon, Intel, among others) are starting to sniff around, and many appear to have significant strategies in the sector that could include acquisition. Next-generation DNA sequencing technologies are helping to open the doors to adjacent industries, including big data and diagnostics.

Synthetic biology is also being helped by next-generation sequencing advances. There are a number of companies with potentially “game-changing” technologies that are just starting to commercialize.

Dx/tools companies face regulatory uncertainty

However, some challenges remain, especially in the dx/tools sector. They include identifying the FDA’s role in regulation and getting commercial reimbursement. To that point, strong and clear (or at least consistently enforced) FDA standards could bring clarity to the industry and provide confidence in marketed products, which in turn would allow payers to move more aggressively to accept payment for these tests.

We believe that dx/tools is positioned for continued solid returns in 2015 based on a number of strong, revenue-stage private companies. The potential issue is the headwinds of poor post-IPO performance last year as well as the lack of enterprise value consideration as a part of M&A. Thus, it could be tough for some of these companies to access the public markets or find a buyer. Instead, private companies could be poised for consolidation in the sector, yielding companies that have multiple tests developed for a specific indication. “Owning an indication” could help to establish these companies as market leaders, generating the enterprise value that has been lacking so far and creating attractive M&A and IPO candidates.
Focus on big exit M&A: What is driving value creation

Soaring exit multiples tell healthcare rebound story.

Capital efficiency is key to positive returns

For this year’s report, we analyzed big exit M&A activity over the past six years to identify exit multiple trends. What factors drive investor returns in biopharma and device? Stage? Indication? Capital intensity? We examined the data and classified quartiles based on exit multiple for biopharma and device. There was not enough dx/tools activity to conduct a meaningful multi-year analysis.

Biopharma companies in the top quartile had impressive exit multiples of more than 8x, and device companies were only slightly behind with multiples of more than 7x (Exhibit 26).

In 2014, 10 deals had exit multiples exceeding 10x the amount of capital invested, and three had multiples above 20x. These substantial multiples underscore the large rebound in healthcare and the significant returns available. For example, if a single investor owned at least 25 percent in each of these big exits since 2009, that investor would have seen at least 30 deals each return $100 million or more.

How SVB calculates exit multiples

We calculated exit multiples in a conservative manner, dividing big exit value by the amount of venture dollars invested. Big exit value is calculated by multiplying the upfront payment by 85 percent, then multiplying any milestones to be earned by 25 percent.
Biopharma: Large equity round doesn’t guarantee top returns

Given that many Series A equity rounds biopharma we see typically are more than $20 million, we were surprised by the low median dollars ($16 million) raised for top quartile biopharma companies. The lesson for investors is that a big equity round does not necessarily translate to top returns. Unless a company is building directly to access the public markets, capital investment needs to be very measured to get top quartile multiples. On that point, since 2009 only two M&A deals with more than $70 million invested returned multiples greater than 4.5x.

Thus, companies should look to leverage non-dilutive funding when possible. Many companies started since 2009 have diverse asset pipelines, and partnerships with big biopharma can help by providing non-dilutive funding and validation of the technology. In addition, we have seen an upswing in patient advocacy groups that are providing non-dilutive grants to help defray clinical costs in specific trials. This also provides clinical development opportunities for companies without adding to equity capital.

Biopharma: Oncology companies post highest exit multiples

Predictably, pre-clinical exits produced healthy exit multiples, with 45 percent of those deals reaching the top quartile. In comparison, 41 percent of commercial-stage exits were in the bottom quartile.

By indication, oncology company exits showed excellent overall returns, with 35 percent of exits reaching the top quartile, and 57 percent making the top half (Exhibit 27).

---

**Exhibit 27: Biopharma Big Exit M&A Multiples by Quartile and Top Indication (2009-2014)**

<table>
<thead>
<tr>
<th>TOP QUARTILE</th>
<th># of Exits</th>
<th>% of Top Quartile Exits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncology</td>
<td>8/22</td>
<td>36.4%</td>
</tr>
<tr>
<td>Anti-Infectives</td>
<td>3/22</td>
<td>13.6%</td>
</tr>
<tr>
<td>Metabolic</td>
<td>3/22</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2ND QUARTILE</th>
<th># of Exits</th>
<th>% of 2nd Quartile Exits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncology</td>
<td>5/22</td>
<td>22.7%</td>
</tr>
<tr>
<td>Respiratory</td>
<td>3/22</td>
<td>13.6%</td>
</tr>
<tr>
<td>CNS</td>
<td>3/22</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3RD QUARTILE</th>
<th># of Exits</th>
<th>% of 3rd Quartile Exits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNS</td>
<td>4/20</td>
<td>20.0%</td>
</tr>
<tr>
<td>Oncology</td>
<td>3/20</td>
<td>15.0%</td>
</tr>
<tr>
<td>Respiratory</td>
<td>3/20</td>
<td>15.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOTTOM QUARTILE</th>
<th># of Exits</th>
<th>% of Bottom Quartile Exits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncology</td>
<td>7/21</td>
<td>33.3%</td>
</tr>
<tr>
<td>Respiratory</td>
<td>3/21</td>
<td>14.3%</td>
</tr>
</tbody>
</table>

Source: CB Insights, VentureSource, PitchBook, press releases and SVB proprietary data
**Device: Sustainability requires capital efficiency**

The device companies in the top quartile had a median of $15 million invested. Only two device deals in the last six years showed better than a 3.5x multiple when dollars invested exceeded $50 million. Like biopharma, this indicates capital efficiency is the key to positive returns (Exhibit 28).

But that means a tough road for device companies, as most device companies are single product and do not have the ability to find non-dilutive partnership capital. In addition, the vast majority of deals require raising a commercialization round. Almost all of the bottom device quartile deals had $50 million or more invested. However, plenty of good deals are happening. There were 39 device deals since 2009 that delivered 3.5x or greater exit multiples.

By indication, aesthetics companies had the best performance in device, as all four exits were top quartile (Exhibit 29). Vascular exits also have performed well, with more than half reaching the top two quartiles.
2015 is shaping up to be another great year for healthcare

In 2014, we saw fantastic returns in venture healthcare that we have not seen in years. What we thought was a white-hot market in 2013 turned out to be only a precursor to an exceptionally active 2014, with IPOs and big exit M&A lifting biopharma, device and dx/tools.

For 2015, we predict the healthy investment and fundraising pace to continue. With plenty of new capital to invest, company creation should equal or surpass 2014. Corporate venture activity will continue to support biopharma and dx/tools, but will lag in device. While big exit M&A will increase across the board, IPOs likely will dip slightly, except for device. Buoyed by their success, non-VC investors will stay active in pre-IPO companies.

Overall, 2015 is set to be another remarkable year for the healthcare industry, driven by strong investor confidence in exit opportunities for the next few years.
Glossary

**Big Exit**
Big Exits are defined as private, venture-backed merger and acquisition transactions in which the upfront payment is $75 million or more for biopharma deals and $50 million or more for device and dx/tools deals.

**Initial Public Offering**
IPO defined as venture-backed company raising minimum IPO proceeds of $25 million.

**Deal Descriptions:**
- **Structured Deal**
  This is a pay-for-performance system that pays some of the consideration upfront, but sets milestones in development that must be achieved before the full value of the transaction will be realized.

- **Big Exit Upfront Payments**
  The upfront payment refers to payments in a structured deal that are made at the close of the deal; it does not include milestones.

- **Big Exit Milestones to be Earned**
  The milestones to be earned refer to payments in a structured deal that are made after the pre-determined goals are met.

- **Total Deal Value**
  The total deal value of a structured deal includes both the upfront payment and the milestones to be earned.

**Regulatory Definitions:**
- **Non-approved**
  Non-approved refers to a company that has no regulatory approval for its product.

- **CE Mark**
  CE Mark refers to a company that has a CE Mark-only product. CE Mark is a European Union designation that is less difficult to obtain than FDA approval, and the approval process typically has a faster time line.

- **Commercial**
  Commercial refers to a company that has an FDA-approved product, and typically is in commercial stage.

**Series A**
Series A companies are defined as U.S. companies raising at least $2 million in equity in a round.
About Silicon Valley Bank

Silicon Valley Bank is the premier bank for technology, life science, cleantech, venture capital, private equity and premium wine businesses. SVB provides industry knowledge and connections, financing, treasury management, corporate investment and international banking services to its clients worldwide through 28 U.S. offices and seven international operations. (Nasdaq: SIVB)

www.svb.com

This material, including without limitation to the statistical information herein, is provided for informational purposes only. The material is based in part on information from third-party sources that we believe to be reliable, but which has not been independently verified by us and for this reason we do not represent that the information is accurate or complete. The information should not be viewed as tax, investment, legal or other advice nor is it to be relied on in making an investment or other decision. You should obtain relevant and specific professional advice before making any investment decision. Nothing relating to the material should be construed as a solicitation, offer or recommendation to acquire or dispose of any investment or to engage in any other transaction.

©2015 SVB Financial Group. All rights reserved. Silicon Valley Bank is a member of FDIC and Federal Reserve System. SVB®, SVB Financial Group, and Silicon Valley Bank are registered trademarks. B-15-14017 Rev. 05-28-15.