FEATURE

Return on capital performance in life sciences and health care

How have organizations performed and where are best bets going forward?

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THE DELOITTE CENTER FOR HEALTH SOLUTIONS
Executive summary

Organizations across the health care spectrum are looking for opportunities to generate returns, build capabilities, and attract customers. Today, this industry consists of traditional players—hospitals and health systems, pharmaceutical and device manufacturers, and a host of entities that exist somewhere in between, such as pharmacy benefit managers (PBMs), drug wholesalers, and pharmacies. Consolidation is happening within each sector, as is convergence (organizations partnering or combining across sectors). However, the pace of convergence has accelerated over the last 12 months. Many new and surprising partnerships are emerging among these players and with outsiders—with strange bedfellows coming together across sectors in their pursuit of new revenue streams, greater focus on outcomes, and more control over parts of this growing market.

We explored the value that these activities brought to health care companies with a view to assess potential future opportunities by analyzing return on capital (ROC). ROC is a measure of financial performance that takes an investment perspective. It provides insights for organizations that are considering potential partners and new opportunities (as well as health care investors), and it adds a strategic perspective as to what might be the best bets. While many analysts have focused on profit, margins, and revenue, ROC provides a fresh lens to understand the efficiency of allocating the capital under control to drive profitability.

Deloitte’s seven-year (2011–2017) review of ROC found that:

- Drug intermediaries and retailers, on average, have the highest return on capital across the health care sectors.
- In 2017, drug wholesalers (15 percent), PBMs (12 percent), and pharmacies (18 percent) had, on average, higher ROC than any other sectors under study.
- Life sciences companies, which generally have higher profit margins than companies in other sectors, had lower ROC than drug intermediaries and retailers. In 2017, pharma and medtech companies had ROC between 10 and 12 percent, on average.

- Return on capital declined across the seven sectors we studied between 2011 and 2017, with life science companies experiencing the largest drops.
  - The ROC for pharma companies declined from 17 percent in 2011 to 11 percent in 2017. Similarly, for medtech companies, the ROC declined to 10 percent from 14 percent during 2011–2017.

- Despite overall declining return on capital, companies with some specialty focus areas had higher returns than average, ranging from 10 to 30 percent, depending on the focus. In 2017, companies that focused on specialty areas had the highest ROCs:
  - Pharma: Oncology (18 percent), musculoskeletal (20 percent), and anti-virals (26 percent)
  - Medtech: Robotic surgery (21 percent), cardio (15 percent), ENT (20 percent), and in-vitro diagnostics (15 percent)
  - Hospitals: Heart (32 percent), surgical (30 percent), and orthopedic (21 percent)
So what might be the best bets in the near term? Specialization might be one continuing opportunity. Services and solutions that deliver value by improving outcomes and lowering costs are another.

In the longer term, we expect major shifts in the largest returns. We predict that—with interoperable and real-time data coupled with the full range of new technologies—the greatest returns will accrue to organizations that successfully mine data to deliver personalized solutions that keep people healthy and functioning at their highest potential. Meeting the evolving demands of consumers and delivering results will be the key to success.

**Introduction**

The health care industry includes organizations that deliver and finance care (hospitals and health systems, health plans), life sciences innovators (pharmaceutical and medical device manufacturers), and a host of entities that exist in between (PBMs, wholesalers, pharmacies). Mergers and acquisitions have been widespread across these businesses, with hospitals buying physician practices and each other, life sciences companies buying small companies with innovative assets, and health plans buying providers and expanding capabilities around alternative payment models in partnership with hospitals. In a recent survey, one in two senior executives across these health care and life sciences sectors cited M&A as their preferred growth strategy. While consolidation within sectors is an ongoing trend, convergence—organizations partnering or combining across sectors—has picked up pace. During the last 12 months, we have seen a surge in seemingly strange bedfellows converging to innovate and corner a portion of the changing health care market. A decade ago, no one would have likely imagined a pharmacy chain expanding into retail health care delivery and acquiring one of the country’s largest health insurers; or a company that began as an online bookstore partnering with an investment management firm and entering the employee benefits business.

**Returns on capital have declined in the health care industry, with diversified life sciences companies experiencing the largest drops during 2011–2017**

To determine the value of future opportunities, we analyzed return on capital (ROC) for the various sectors, including:

- **Sectors where ROC has declined the most:**
  - Diversified life sciences
  - Health plans
  - Hospitals

- **Sectors where ROC has been relatively stable:**
  - Medical device manufacturers
  - Pharmaceutical companies

**What is Return on Capital and How Did We Measure It?**

Conceptually, ROC employed adds an efficiency perspective in addition to profitability. It indicates how efficient a company is at turning capital investments into profits. For this study, we measured ROC as the ratio of earnings before interests and taxes (EBIT) to capital employed. For consistency across sectors, we calculated capital employed as total assets minus current liabilities. This book value calculation is based on the widely recognized and generally accepted definition of ROC. We have included goodwill and intangibles in capital employed. Goodwill comes from the acquisition of one company by another for a premium value. The inclusion helps in understanding the relative impact of M&A on the ROC by sector.

This standard ROC measure reflects choices organizations have made around holding cash, whether they have purchased or developed their own intangible assets, and whether they have outsourced capital-intensive aspects of their business. The amount of M&A activity can affect individual companies’ ROC as well as the ROC for the industry in any given year.
businesses that comprise the life sciences and health care market. Although revenues, profits, and margins are important measures, we analyzed the ROC, specifically the ROC employed (see the side bar, “What is return on capital and how did we measure it?”), as this measure can provide a fresh lens to assess whether companies’ investments have paid off.

We studied the ROC trends for each of the major health care businesses between 2011 and 2017 to understand the returns generated as the economy emerged from a recession and through the period of health care reform implementation.

Among the seven major health care businesses we studied, drug intermediaries and retailers had the highest ROC. Wholesalers, PBMs, and pharmacies are transactional, operate on very low margins, and are not as profitable as other health care businesses, but changing the lens from profitability to returns on capital puts these businesses among the best-performing sectors. For instance, the drug wholesalers, which typically operate at 1–2 percent margins, had an ROC of 15 percent in 2017. This is due to significantly lower capital requirements compared to health innovation and health delivery businesses. In contrast, life sciences companies, which generally operate at very high margins, had relatively lower ROC due to very high capital requirements, particularly in the product development phase.

During the analysis period, ROC declined for each of the seven major health care businesses we studied (figure 1). Life sciences companies had the largest drop in returns. Drug intermediaries and retailers began and ended with the highest ROC, though with noteworthy variation over the years. While hospital returns trended steady, returns in the health insurance business ebbed through 2015.
before recovering in 2017. What are some of the reasons for these shifts?

**Drug intermediaries and retailers** had the highest returns among all sectors. However, returns are falling, particularly for drug wholesalers, despite significant industry consolidation. Pricing pressure on drugs—both branded and generics—over the past few years has eaten into the profits of the wholesalers, as their revenue and profits reflect drug prices and volume. In contrast, pricing pressure coupled with better pricing negotiation with wholesalers as well as an increased focus on specialty pharmacy businesses has helped pharmacies outperform other sectors on ROC.¹

For **pharma companies**, research and development (R&D) productivity is one of the major factors behind deteriorating returns on capital. R&D returns (returns companies might expect to achieve from their late-stage pipelines) fell radically from 10 percent in 2010 to 2 percent in 2018, according to Deloitte’s annual analysis. This decline is the result of fewer assets in the late-stage pipeline and lower potential sales per asset. During the same period, the average cost to develop an asset doubled.² Marketplace pricing and access pressure are other contributing factors, particularly in primary care portfolios where rebate costs have risen dramatically. In addition, large-scale acquisitions, many at a high premium (goodwill), likely dragged down the ROC for acquirers.

For **medtech companies**, while R&D productivity is one reason for falling ROC, another key factor is pricing pressure from health systems. Traditionally, medtech companies’ sales depended on relationships with physicians, who decided what devices, equipment, and supplies to use. Now hospital and health system procurement experts make those decisions. They tend to buy fewer items and drive harder bargains. Medtech products can be difficult to differentiate in terms of patient outcomes, and product development is often focused on incremental changes based on physician preferences rather than on unmet patient needs. As a result, some medtech companies are competing solely on price, which has led to ROC deterioration.³

**Hospitals and health systems** are the most capital-intensive organizations in the health care sector, and their ROC levels are the lowest. Decreased losses from bad debt due to expanded health insurance coverage through the Affordable Care Act (ACA) and consolidation have contributed to relatively stable returns. Larger systems tend to have higher ROC than the industry average. ROC for the top five largest health systems by revenue was double (12.3 percent in 2017) the ROC for the rest of the hospitals and health systems we studied.

In an era of value-based payments and accountable care organizations, the importance of being part of a health system network has increased. Independent hospitals have struggled, with 4.5 percent ROC in 2017, compared to 7 percent for hospitals that are a part of a health system.

**Health plan** returns were cut in half—from 13.2 percent in 2011 to 6.8 percent in 2015—in the wake of policy and market turbulence. ACA provisions, including the establishment of health insurance exchanges, the individual mandate, and guaranteed issue, resulted in losses in the individual line of business, which affected the overall profitability of health plans.⁴ However, performance in this line of business, as well as other business lines, has improved. As of 2017, health plan underwriting profitability has recovered to pre-ACA levels, and ROC has rebounded to 12 percent.

Line of business has been an important predictor of returns for health plans. Over this period, returns from government programs, especially Medicare Advantage but also Medicaid, have been relatively high, especially when compared with the individual market. The large group business—historically the most profitable—has transitioned to administrative services-only contracts as employers self-insure. This business has not been growing to the same extent as government programs.

As in many other businesses, size has been an important predictor of profitability for health plans. In our earlier analysis on profitability, we found the largest health plans by revenue captured a disproportionate and growing share of sectorwide underwriting profits. Of the 200 or so health plans
in the United States, the top three captured about 80 percent of the total industry underwriting profits in 2017. At 16 percent, the average ROC for the top five health plans was almost double that of the rest of the health plans (9 percent) in 2017.

Companies focused on some specialty therapeutic areas have higher return on capital

Despite overall falling ROC, some organizations have significantly outperformed their peers. For life sciences companies and hospitals and health systems, specialty-focused companies systematically outperformed in terms of ROC and revenue growth (figure 2). (See the appendix for definitions of specialty focus in these sectors.)

PHARMACEUTICALS

Returns of pharmaceutical companies focused on specialty therapeutic areas were 17 percent in 2017, compared to 9 percent for companies with diversified portfolios. Moreover, specialty pharma companies’ revenue grew 15 percent annually between 2011 and 2017, compared to diversified companies’ 2 percent.

• Pharma companies focused on oncology, musculoskeletal diseases, disorders of the

![FIGURE 2](image_url)

Health care organizations focused on particular specialties have higher return on capital and revenue growth

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1Pharma companies with over 2/3rd revenue from specialty therapy areas (based on EvaluatePharma data; company filings).

11Hospitals with primary service focus on pediatric, heart, cancer, orthopedic, ENT, gynecology, and other specialty areas (based on Truven classification).

111Medtech companies with over 2/3rd revenue from specialty diagnostic areas (based on EvaluatePharma data; company filings).

Sources: Deloitte analysis of the SEC filings through S&P Capiq; NAIC and DMHC filings through S&P Market Intelligence; Medicare cost financial filings through Truven Health Analytics; American Hospital Association annual surveys; EvaluatePharma.
central nervous system (CNS), and anti-virals are among those that got higher returns (figure 3). Several companies are strengthening their pipeline in these specialties. For instance, our earlier study found that oncology assets represented 39 percent of late-stage pipelines in 2018 for big pharma companies, compared to just 18 percent in 2010.8

- Companies with a more diversified portfolio, or a generics focus, registered lower returns and slower revenue growth. Diversified companies generated returns of 9 percent in 2017, with average annual growth of 1 percent between 2011 and 2017.

- Companies with a focus on primary-care therapeutic areas—such as diabetes and cardiology—had the highest annual revenue growth of 22 percent between 2011 and 2017. However, their returns remained low, as in the case of diversified and generics-focused companies, due to patent expirations and pricing pressures.

Many companies, especially smaller ones, tend to redeploy their profits, and may have lower operating earnings by choice. What effect did this have on our findings? When we removed companies with revenue of less than US$500 million from our analysis, we did not find any meaningful differences, except for small differences in oncology, CNS, and musculoskeletal disease groups (when small companies were eliminated from the analysis of these groups, return on capital was slightly higher).
MEDICAL TECHNOLOGY

Specialty-focused medical technology companies had an ROC of 11 percent in 2017, compared with diversified companies’ 9 percent. In the medtech business, companies that focus on certain diagnostic specialties—such as robotic surgery, cardiology, ENT, and in-vitro diagnostics (IVD)—outperformed device makers with a more diversified portfolio as did those that focus on breakthrough product innovation, especially in new or underdeveloped markets (figure 4).9

HOSPITALS AND HEALTH SYSTEMS

Hospitals that focused on certain specialties had much higher ROC than acute general hospitals (figure 5). Specialty hospitals tend to deliver care for indications or illnesses that might need intensive care. For instance, surgical hospitals and hospitals focused on heart, orthopedic, and gynecology had ROC above 20 percent in 2017, compared to other general hospitals’ 6 percent.

Despite being specialized, cancer hospitals had slightly lower returns than the industry average. One of the major reasons is that these hospitals are capital-intensive—the average capital they employ is more than three times the capital employed by other specialty hospitals such as surgical, heart, and orthopedic.

Where might the industry find future returns on capital?

As the industry prepares for the future, organizations across the health care sector can look to earn higher returns on capital by diversifying revenue streams, building capabilities, and engaging customers. Our analysis suggests that organizations

Note: The bubbles represent medtech companies with over 2/3rd revenue from specific therapy areas (based on EvaluatePharma data; company filings).
Sources: Deloitte analysis of the SEC filings through S&P Capiq; EvaluatePharma.
are benefitting from drug intermediary and retailer portfolios as well as a specialty-product focus. Some of these could persist into the future.

Life sciences firms (medtech and biopharma) should actively consider the valuation and management of specialty assets and primary care assets. We believe there are opportunities to tweak portfolio management for higher returns by leveraging geography, operating model, and ecosystem convergence. In addition, life sciences companies could also consider a business model focused on services and solutions that may have lower margins but generate higher returns.

Further out in the future, we anticipate the health care landscape to change as the life sciences and health care companies of today and new market entrants replace and redefine current business models to power the future of health. We see three major areas that companies will likely reorganize themselves under:

- **Data and platforms.** Companies providing these services will constitute the foundational infrastructure that will serve as the backbone of tomorrow’s health ecosystem by generating insights for decision-making. All other products and services will be developed leveraging the data and platforms that underpin consumer-driven health.

- **Care enablement.** These are the companies enabling the new health engine to run. They will include intermediaries and financiers, but those providing more individualized, value-oriented offerings.
Well-being and care delivery. Companies providing these services will be the most health-focused of the three groups. They will comprise care facilities and health communities—both virtual and physical—and will deliver consumer-centric products, care, wellness, and well-being.

Companies in services-focused sectors (such as hospitals, health plans, PBMs, and pharmacies) are converging to transform their business models in pursuit of higher return on capital. In recent years, hospitals have acquired or started their own health plans to better control financing. Similarly, health plans have acquired post-acute care providers, physician groups, and behavioral health providers to exercise greater control on care costs and delivery. Another significant trend is health plans acquiring or merging with PBMs and pharmacies. These deals can ensure diversified revenue streams, savings on drug costs, data for insights, and brick-and-mortar locations.

Many companies in product-focused sectors such as pharma and medtech are still primarily engaged in core innovation deals in their own businesses as opposed to convergence. For instance, several pharma companies are focused on pipeline deals to strengthen their portfolios. Similarly, many medtech companies are acquiring technology assets (for example, pipeline deals, technology deals) within their sectors to improve scale and profitability.

In a future with interoperable and real-time data coupled with the full range of new technologies, the greatest returns will likely accrue to organizations that successfully mine the data to deliver personalized solutions that work to keep people well and functioning at their highest potential. Meeting consumers’ evolving demands and delivering results will be the key to success for organizations across the health care industry.

Appendix

DEFINING RETURN ON CAPITAL

We analyzed the average return on capital (ROC) across seven health care businesses between 2011 and 2017. We defined ROC as a ratio of earnings before interests and taxes (EBIT) to capital employed. For consistency across sectors, capital employed is calculated as total assets minus current liabilities.

We worked with certain data and accounting limitations:

- For hospitals and health systems, pension and other defined benefits obligations are included under capital employed due to the accounting conventions. Removing these items did not have a meaningful impact on the results.

- The R&D spending of several pharma and medtech companies—often considered their potential asset—is not capitalized and hence does not reflect under “capital employed.” However, it is reflected under EBIT and is a part of the ROC calculation.

- Certain pharma companies, which had small medtech businesses, were not considered for the medtech analysis, as separate balance sheet data was not available.

- For drug intermediaries and retailers that may be operating in more than one sector, we procured the EBIT by appropriate business segment as reported by the company. For instance, for a drug wholesaler that may also have a medical supplies business, we procured the EBIT of only the wholesale business segment. However, capital employed data was not available by business segment for these companies. We allocated the capital based on the share of revenue by business segment.
DEFINING SPECIALTY FOCUS

We conducted analysis of companies in pharma, medtech, and hospitals and health systems sectors based on their product and services focus. For these sectors, we classified the companies into:

**Pharma**
Data and therapy area classifications are based on EvaluatePharma.

- **Specialty-focused.** Companies with over two-thirds revenue from a single specialty therapy area. Therapy areas include oncology, musculoskeletal diseases, diseases of the central nervous system (CNS), anti-virals, blood, and sensory organs.

- **Primary care-focused.** Companies with over two-thirds revenue from a single therapy area focused on primary care. Therapy areas include diabetes, anti-infective, cardiology, gastro-intestinal, and genito-urinary diseases.

- **Diversified.** Companies with no single therapy area contributing to two-thirds revenue or more.

- **Generics-focused.** Companies with over two-thirds revenue from generic assets.

**Medtech**
Data and product area classifications are based on EvaluateMedtech.

- **Specialty-focused.** Companies with over two-thirds revenue from a single product area. Product areas include diagnostic imaging, orthopedics, ophthalmic, cardiology, robotic surgical,
endoscopy, dental, drug delivery, in-vitro diagnostics, and ear-nose-throat (ENT).

• **Diversified.** Companies with no single product area contributing to two-thirds revenue or more.

**Hospitals and health systems**

Data and classifications are based on American Hospital Association Surveys.

• **Specialty hospitals.** Hospitals with majority revenue from a single care delivery specialty. Specialties include cancer, heart, children, surgical, obstetrics and gynecology, and orthopedic.

• **General acute care hospitals.** Hospitals with diversified secondary and tertiary care delivery services.
Endnotes


8. Steedman et al., *Embracing the future of work to unlock R&D productivity: Measuring the return from pharmaceutical innovation 2018*.

9. Ibid.

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