Even before the Affordable Care Act, America’s healthcare delivery system faced significant challenges. The Baby Boomer population, experiencing more and more ailments associated with aging, continues to create a higher demand on healthcare resources, services and products. An increase in the incidence of chronic conditions such as diabetes and hypertension among all age groups is also taxing the system. Higher claim volumes coupled with rising costs across the healthcare spectrum compel insurance companies to constantly be on the lookout for ways to offer more efficient coverage.
Shifting consumers away from traditional care outlets and providing products and services that enable them to self-manage their health are core tactics for lowering medical costs. From drugstore-based urgent care services that reduce doctor office visits for minor ailments to remote monitoring systems that allow surgery patients to spend more of their recovery at home, giving consumers greater control over their healthcare translates into savings. It also opens up immense opportunity for corporate leaders seeking to enter the direct-to-consumer medical market.

How can today’s senior executives successfully penetrate this potentially lucrative market segment? What are the key factors for a “hit” product and what are the common pitfalls to avoid? Cleveland-based business innovation firm Nottingham Spirk has developed hundreds of patented products that have generated billions of dollars in sales for industry-leading companies.

Nottingham Spirk is best known for their mega-hit consumer product the SpinBrush; the world’s first under $5 electric toothbrush (with a 50% margin). No other product has been as consistently dominant without any major competitors. About halfway through the company’s 44-year history, medical companies started seeking Nottingham Spirk’s end-consumer expertise and asking them to make medical devices more patient-friendly. For instance, Nottingham Spirk consultants revolutionized the MRI machine for Philips, formerly Picker. They did so by understanding the entire patient experience and what made them so nervous about the procedure. The result was an approachable design that set the standard for the MRI industry.

Now the firm is being asked to take the medical industry a whole level closer to consumers by helping them sell directly to the end-consumer. Nottingham Spirk’s medical innovation practice, InnovateMD™, has quickly become a trusted resource for developing direct-to-consumer medical products.

From initial research through design and launch, this Executive Guide to Entering the Direct-to-Consumer Medical Market provides an overview of the market and the necessary considerations and steps for successfully entering it.

These steps include:
- Quantifying the consumer medical product market’s potential value
- Knowing the relevant innovation landscape
- Identifying the right product or products to develop
- Manufacturing cost analysis and pricing studies
- Critical medical product design considerations for successful consumer adoption
- Aligning distribution and sales
- The importance of executive-level sponsorship

The Opportunity: Quantifying the consumer medical care market

According to an independent Espicom study published in July of 2015, the U.S. medical device market is the largest in the world and at $392 per capita, medical device spending in the U.S. is second only to Switzerland. Valued at $125 billion in 2013, the market is expected to grow by 6.1%, or $7.5 billion, by 2018. Moreover, analysts at research and strategic services firm IHS have projected that by 2017, global revenues from consumer medical device sales will top $10 billion. The Espicom report focused on six product areas that offer significant commercial opportunity: Consumables, Diagnostic Imaging, Dental Products, Orthopedics & Prosthetics and Patient Aids.

Behind the numbers are several significant socio-economic factors including the aforementioned aging Baby Boomer population that is willing and ready to embrace a higher level of self-care; the Affordable Care Act and other federal and state legislative initiatives that provide incentives for developing direct-to-consumer healthcare solutions; a vast, Millennial generation (83 million adults ages 18–35) that grew up on technology including self-serve healthcare devices such as EpiPens and glucose monitors; and the continued focus by insurers on new solutions that empower their policyholders to take more control of their health and reduce the costs associated with traditional, institutionalized care.

In a recent Harris Poll/Nottingham Spirk survey of 2,009 consumers, more than four out of ten respondents said they would purchase medical products for managing chronic diseases and conditions such as diabetes, hypertension and arthritis at home. More than half said they would purchase products that gave them more control over their health.
Knowing the innovation landscape

Opportunity lies not only in what consumers need but also in what innovation can enable. Obviously, the global medical solution landscape is vast and changing on a daily basis with billions of dollars of products always under development.

Getting in on a promising solution while it’s still in the conceptual stage enables maximum return on its commercialization. For example, Nottingham Spirk helped client CardioInsight streamline a “Frankenstein” prototype for a biophysical electrocardiogram monitoring vest embedded with 252 EKG-type electrode sensors. Working with CardioInsight’s developers, the Nottingham Spirk vertically-integrated team took the vest from prototype to a marketable product in less than 12 months. Significant advancements included reducing its weight, solving the issue of ensuring accurate positioning of the electrodes regardless of body type, and driving the cost down so that insurance companies would reimburse hospitals for using it for diagnostic tests.

The final product, originally 15 pounds, weighs only a few ounces thanks to printed electronics and lightweight material. It is also disposable and makes it faster and easier for hospital technicians and physicians to get more accurate results on diagnostic tests. In addition to winning a Gold Edison award, the vest prompted the acquisition of CardioInsight by Medtronic, who purchased the company for $93 million.

Identifying consumer healthcare devices ripe for development

Determining which product is appropriate for direct-to-consumer development depends on accurately answering the following questions:

- Where are the opportunities for market disruption?
- Is it better to develop a proprietary solution versus entering the market via strategic acquisition?
- What can be developed and manufactured at a price point consumers will accept?
- What type of product supports the company’s strategy and goals?

Market disruption

It’s been proven time and time again that a product that causes market disruption delivers a higher return than improving an existing product or creating a line extension. An article in the *Harvard Business Review* by Bansi Nagji and Geoff Tuff noted that in terms of total returns, 70% typically comes from transformational products, while 20% comes from adjacent (line extension) products and only 10% comes from core product improvements. Evaluating where the opportunities for market disruption lie requires an intimate understanding of how current consumer needs and priorities create the opportunity to significantly shift a healthcare behavior.

In addition, there has to be relevant, enabling innovation that can be transformed into a product or service to support the change in behavior. A timely example is the HealthSpot medical care kiosk co-created by Nottingham Spirk and currently being rolled out at Rite Aid pharmacies in Ohio. The telemedicine-enabled kiosk allows physicians to examine and diagnose patients using remote tools and high-definition cameras. Patients will be able to connect with medical professionals from Cleveland Clinic, Kettering Health Network and University Hospitals, including pediatric specialists from UH Rainbow Babies & Children’s Hospital, as part of HealthSpot’s Care Network. This is truly a market-disrupting alternative to conventional, in-person doctor visits.

Insurance companies appreciate the immediate access that a HealthSpot station provides to their customers. When doctors’ offices are closed, what would have been a costly emergency room visit for a minor ailment like an ear infection can
now be taken care of in a neighborhood pharmacy. When done right, a disruptive innovation also tends to offer advantages outside the core technology. For instance, although consumers benefit from the convenience HealthSpot provides, it also gives physicians more freedom and control over their schedules. When so many stakeholders benefit from a new product, it has the power to not only be a commercial success but to disrupt the industry’s traditional service delivery model. As business innovation providers, our consultants are constantly assessing “tipping points” where a new consumer medical product would solve multiple needs and therefore present an opportunity to create a whole new source of revenue where none existed before.

Proprietary development vs. acquisition
Deciding whether it’s better to build or buy requires a significant understanding of the short-term costs of each option weighed against long-term potential gain. Developing and manufacturing the product instead of purchasing can lead to additional, long-term revenue streams generated by patents, product extensions and potential licensing agreements. It is also up to ten times less expensive to build than it is to buy as acquisition prices include projected revenues for years to come. Furthermore, in building a proprietary and unique business internally, Nottingham Spirk can assist in developing the necessary skills sets and market knowledge. Unlike an acquisition situation where cultures might clash and roles overlap, building the internal team boosts morale and creates opportunities for young leaders so talent is not lost.

Equally important is speed to market. Getting there first is the name of the game when the intention is to disrupt the market and that means products need to be rapidly developed.

Retail Experience
Production Support
Structural Packaging
Branding & Digital Media
Sourcing
Prototyping
Engineering
Design
Ideation
Market Analysis
Customer Insights

Nottingham Spirk’s Vertical Innovation™ Process

12-18 months

Identifying products that dovetail with company goals and strategies
It is equally important for companies to identify opportunities for development that support their organization’s overall strategy for growth. First and foremost, the leadership
must agree that pursuing the direct-to-consumer healthcare market makes sense given their company’s core business. A manufacturer that develops medical devices and equipment for the professional or institutional market is well-positioned to expand into the consumer-direct market providing it’s willing to establish the infrastructure needed to support consumer-direct sales and distribution. Partnering or co-branding with a non-medical device manufacturer whose existing material or technological requirements can be applied to consumer medical devices could be another option to explore as they could quickly fill the retailer side of the consumer supply chain. Entrée into the consumer-direct medical device arena can even provide the strategic shift that companies need to increase their brand value.

**Designing and engineering a medical or healthcare product for consumer use**

After the consumer research and market analysis has identified the target innovation for development, including performance expectations and a retail price point, the design and engineering can begin. This is where manufacturers that already make devices for the professional or institutional markets can benefit from Nottingham Spirk’s experience developing both medical devices and consumer products. It is one thing to understand how a medical product must operate technologically but another challenge altogether to ensure it will be adopted and loved by consumers.

Nottingham Spirk works closely with client partners to reveal the consumer perspective. Ease of use and maintenance, weight and comfort, storage and mobility—all of these characteristics are critical to successful consumer adoption. Simplifying or repackaging an existing device originally created for the professional or institutional market unfortunately won’t be disruptive. Nor will creating novel products from scratch that meet performance expectations without considering how well they “fit” into consumers’ lives. Nottingham Spirk has found that consumers have strong adverse reactions when products look like they belong in a hospital or clinical environment. After all, no one wants to call attention to their medical condition if they don’t have to. Portability and discretion have become hallmarks of successful consumer medical device design and engineering.

Consumer research must be a priority throughout the entire innovation lifecycle. It is always tempting to assume all is well after the first consumer focus group and then rely on the engineers to validate design and usability throughout product development. However, ongoing, iterative focus groups and live prototype testing enable the evaluation of consumer comfort levels with the technology. By asking participants to perform certain steps of self-care, you can identify any design or usage issues that may turn into an obstacle to adoption early in the process and flush out solutions for optimal consumer experiences.

Getting the consumer shopping experience right is also important. Package design for retail display is an art and science in and of itself. What should the name of the product convey? How should it be packaged to meet safety and regulatory requirements while attracting interest and influencing the customer at the point of sale? If the product is only going to be available through direct marketing, what are the packaging dimensions and weight considerations that must be taken into account to keep delivery costs from cannibalizing margins?

**Aligning Distribution & Sales**

Successfully entering the direct-to-consumer medical market requires more than creating the right product. It requires creating the right infrastructure, skills and partnerships to get it into consumers’ hands.

If a company treats a new, consumer medical product initiative as a stepchild to its core business, the initiative will not succeed. Nottingham Spirk suggests client partners identify top talent and assign them to the program team. Not only will they learn first-hand how to manage the risks and challenges of disruptive innovation but it gives them an opportunity to demonstrate skills that may not have been apparent within the core business.

As for distribution, current distribution models likely won’t suffice. The good news is that there are a plethora of options...
to consider. From third-party distributor/brokers to partnering with an established retail chain, understanding where consumers would go to find the product and then working backwards from there is often the most effective path to market. Establishing a budget for distribution as well as a realistic consumer launch marketing budget are just as critical to product success as the product itself.

The final factor: executive sponsorship

If a product doesn’t have sponsorship at the top, it will undoubtedly fail even if it’s exactly the right product at the right time. Senior sponsorship ensures that it gets the level of attention necessary for success.

Executive sponsors realize the need to invest in the right people, planning and processes and have the authority to make it happen. These leaders must be able to communicate their vision for success in the direct-to-consumer medical product market.

Only an executive sponsor has the power to create a “start-up” within the larger company, and prepare the organization to shift to a consumer-driven culture; plus get the board of directors and key partners onboard and secure the necessary funding. Employees will also feel energized knowing they can work directly with consumers.

Leaders entering into the direct-to-consumer market will have many skeptics, but the pot of gold at the other end of the consumer medical products rainbow is considerable. Formulating an ROI early on in the program will stave off those skeptics and win the support of the CEO and board. Nottingham Spirk’s highly collaborative process eliminates risks all along the way. And remember, payers will be your biggest ally. They are eager to promote and support products that drive cost from healthcare delivery. That’s why the consumer medical product arena will continue to grow exponentially. A strong go-to-market strategy supported by the right partners is a proven model for a successful entrée into a channel that is still in its relative infancy — and prime for disruption.

Nottingham Spirk is a business innovation firm in Cleveland, Ohio that has helped over 1,400 clients develop more than 1,000 commercialized patents and delivered $50 billion in combined sales from new businesses developed. Nottingham Spirk’s experience in a wide range of medical, consumer and commercial markets makes them one of the most successful innovators in the world.

To learn more about Nottingham Spirk’s medical innovation practice, InnovateMd™, visit our website: nottinghamspirk.com