



By Richard Chu

Teladoc Health: Reshaping Healthcare

Healthcare is a multi-trillion-dollar market and one of the last major markets to be disrupted, but it is notoriously hard to initiate real change thanks to misaligned incentives, a ton of red tape, and a lack of impetus from the system’s main stakeholders. Today, the United States spends more on health care than any other country but is not seeing comparable outcomes. The average premium for family coverage has increased 54% over the last ten years, significantly more than either workers’ wages or inflation.

COVID-19 has exposed the inefficiencies of the current system and opened the door to lasting change. Providers who were once opposed to telemedicine quickly became its biggest champions and regulators followed suit by enacting a number of regulatory changes that made telemedicine and remote monitoring much more accessible. This included allowing patients and providers to use and provide telemedicine services from their own homes, paying physicians the same rate as in-person visits, and allowing them to see new patients outside of the states they are licensed in. And these changes are already in the process of being made permanent. Consumer adoption of telehealth has tripled from 11% in 2019 to 46% as of April 2020, Frost & Sullivan predict the telehealth industry to achieve a 5-year CAGR of 38%, and McKinsey believes that up to \$250 billion in U.S. healthcare spend today is capable of being virtualized.



For Consumers

76% now interested in using virtual care, as compared to 11% prior to COVID-19¹

33% would leave current physician for a provider who offered telehealth access²

Nearly 2/3 want virtual care doctor to partner with existing in-person doctor³



For Payors / Employers

80% of large employers believe virtual care will significantly impact the delivery of healthcare in the future⁴

Implementing more virtual care solutions is #1 priority for large employer health initiatives⁴



For Healthcare Providers

50 – 175x increase in utilization by health systems, independent practices, behavioral health providers and other providers¹

64% of providers are now more comfortable using telehealth¹

Meaningful easing of regulatory and reimbursement requirements for virtual care, with certain changes becoming permanent beyond COVID-19 pandemic

Source: Teladoc Investor Presentation

This has opened the door for an **integrated, consumer-oriented virtual care provider** to define a better, **value-based care paradigm** by providing **the right care to the patients that need it the most, at the right time**. This paves the way for a sustainable healthcare system that can not only withstand these challenging times but thrive in them.

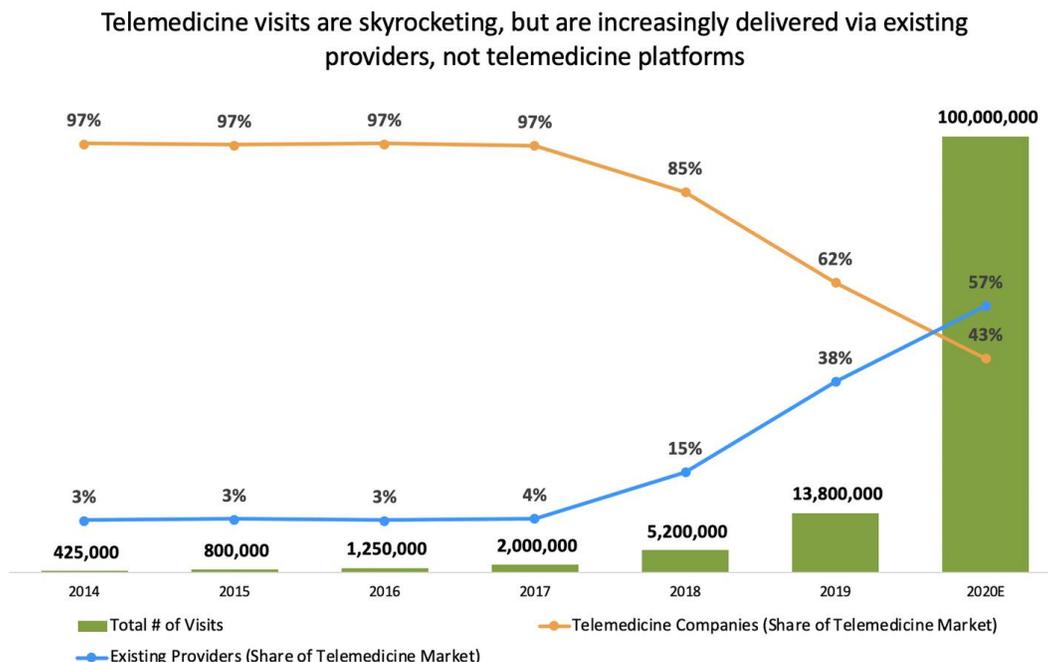
Teladoc as a Standalone Investment:

As bullish as I am on the future of telemedicine, I acquiesce that it can be difficult to build a durable moat. Although telemedicine is very scalable and an easy sell (everyone is a potential customer), the service itself is a commodity with low pricing power and switching costs.

Many of these services compete on scale, as a larger network of providers confers lower connection times and wider coverage. Smaller competitors will find it harder to scale up, as providers may not want to join their network because they don't have the patients and patients may be frustrated with the long wait times and limited coverage. This was seen in March when certain geographies most affected by the pandemic saw wait times skyrocket from 5 to 10 minutes to 60 to 70 minutes, along with a plethora of IT issues, leading to many patients disconnecting. Some, like Babylon Health, use chatbots to screen patients and even give advice after asking a number of prompts, but this was met with significant controversy.

I also do not believe that off-the-shelf consumer products like Zoom or Twilio can replace the core telemedicine providers. They are not integrated, not on-demand, limited to local physician supply, not accessible at the point-of-care via carts or other hospital equipment (important because every minute is precious and can call in specialists), and there is nothing like Livongo to give the providers a continuous picture of patient health.

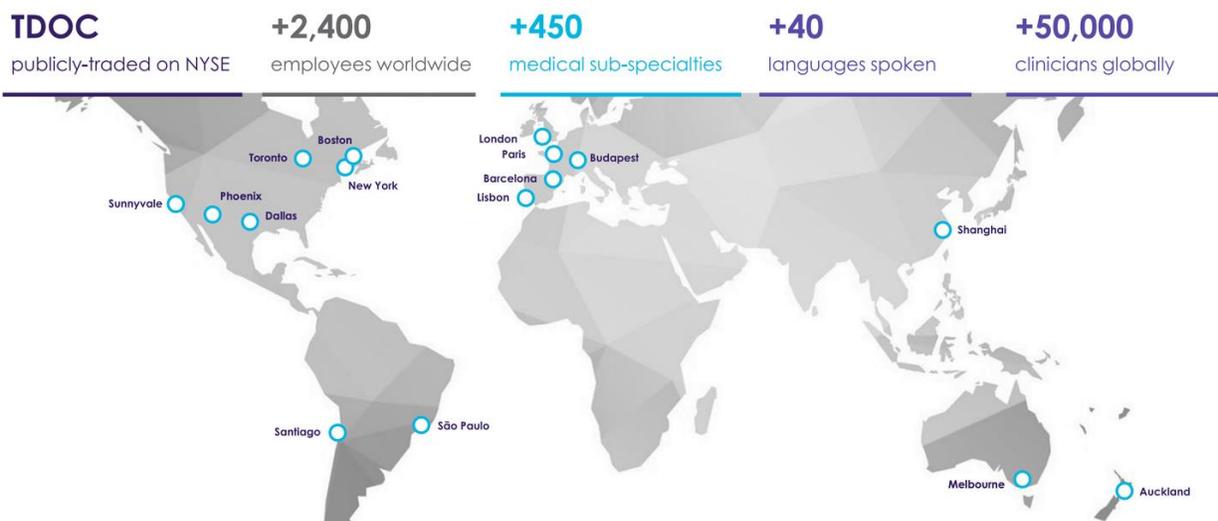
But ultimately, existing providers still largely own the patient relationship and COVID-19 may prove to be a double-edged sword to telemedicine companies in the same way it has to e-commerce companies:



Source: Healthy Ventures

Just as brick and mortar retailers are realizing the importance of developing a viable e-commerce strategy, so too are traditional health systems in creating digital front doors. Indeed, with CMS pledging to reimburse telemedicine visits at the same rate as in-person ones, the largest barrier to telemedicine adoption was removed. Teladoc does sell a white-label solution, which enables health systems to take advantage of Teladoc's additional provider supply while retaining the brand their patients have come to know and trust. However, while this incentivizes health systems to go with specialized platforms like Teladoc or Amwell, it's also making it even more difficult for end-consumers to differentiate the major telemedicine providers at the product-level.

I will say that the big 4 telemedicine platforms (Teladoc, Amwell, MDLive, and Doctor on Demand) are in a unique position to **democratize access to care** now that regulations allow providers to see patients across all states. They can better match doctors with patients when and where they need them under a national network, similar to "load balancing" in computing. This allows for the fundamental redistribution of care, whether it be improving access in rural or underserved areas, enabling the best doctors to treat patients who may not be in the best neighbourhoods, or allowing national specialists to deliver care to many more people across states. Teladoc is international too, so there also exists an opportunity to see patients across international borders.



Source: *Teladoc Investor Presentation*

Similar to how massive open online courses promise to democratize education, so too should telemedicine make it easy for everyone, no matter where you are, at any time, to access the best care.

Yes, access to technology and digital literacy will be a bottleneck in both cases, but this is rapidly changing. The NCQA taskforce on telehealth recently released its final report. They found that "the evidence base for telehealth is strong, particularly when it comes to the remote management of chronic conditions", proposing that just like how telecommunications companies gave individuals phones with a limited number of minutes on them after Hurricane Katrina, insurance companies or federal agencies could do the same with remote monitoring devices to "safeguard access".

The future of telehealth is going to be built on **optimizing patient outcomes**. Delivering personalized care to those who need it, when and where they need it. **Telemedicine ultimately only solves the where**. That's where Livongo comes in, enabling **longitudinal care** that competitors will have a very hard time replicating.

How Livongo Fits In:

Livongo helps people manage chronic conditions including diabetes, hypertension, prediabetes and weight management, and behavioural health through the combination of connected devices, AI-enabled nudges, and human coaches. For example, for diabetes, patients receive a connected blood glucose meter and record and upload their measurements (with unlimited, free, and self-refilling testing strips) which are then combined with additional data from third-party devices like Apple Watches or Fitbits, surveys, medical and pharmacy claims, and more to deliver personalized, timely health “nudges”. These health nudges aim to spur behaviour change and every time one is delivered, Livongo’s AI+AI engine collects valuable data to iterate and further personalize future interactions. If the system detects something is wrong, for example, if a patient uploads a blood glucose reading that is out of range, a health coach will immediately call them and guide them to getting back in range. This model empowers patients to take control of their own health by understanding and reacting to the signals their bodies are giving them, rather than relying on expensive, inconvenient hospital visits. Livongo primarily targets self-insured employers, promising better outcomes and lower costs, and charging a per-member-per-month fee.



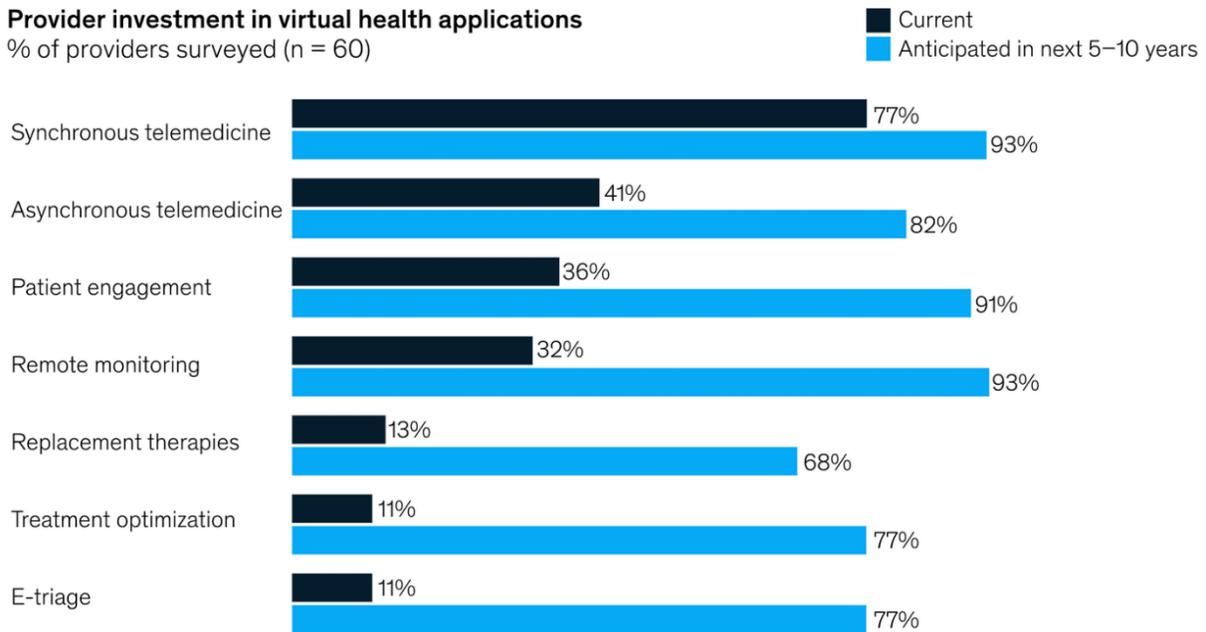
Source: Teladoc Investor Presentation

In contrast with Teladoc, Livongo boasts higher gross margins, a very sticky service with high switching costs because of the hardware and patient data, devices need to be FDA approved, and outcomes and ROI need to be proven through lengthy studies. Furthermore, it takes a lot of investment to cover additional conditions and Livongo’s 750 million data points give them a significant head start as diabetes is a significant risk factor with many chronic conditions. Livongo recently expanded into chronic kidney disease (CKD) in a partnership with Fresenius Medical Care which provides kidney dialysis services and has over 38% market share in the US. Because the 2 most important risk factors in CKD are diabetes and hypertension, a large aspect of prevention needs to come in the form of managing these conditions. Therefore, Livongo was able to leverage its existing products to expand into this adjacent market, demonstrating the optionality of its platform.

However, Livongo is a tougher sell, especially to health systems that do not have the same incentives as employers do, such as controlling costs. Before the pandemic, remote monitoring was an afterthought for many providers, with only 32% making investments in the area. Now it has become more of a necessity with 93% of providers planning to invest in it in the next 5-10 years and CMS creating new remote patient monitoring CPT codes in a bid to spur adoption. In the future, it’s not difficult to imagine a digital health utopia where everyone is continuously monitored by software and patterns in user’s data can predict a diagnosis before symptoms show, helping governments to quickly isolate affected individuals and areas. Some people might think that it's far-

fetches that governments will have full access to our real-time health data, but people also thought governments wouldn't be spying on our internet activity until the War on Terror. Just as it's incredibly hard to prevent a terrorist attack as it happens, it's also incredibly hard to control or develop a vaccine for a new, unknown virus without major economic and societal disruption. The economic and political incentives are there for the further adoption of virtual care as the NCQA taskforce suggested.

Provider adoption: Pre-COVID-19, most also reported that they would be making substantial future investments.



Source: 2020 McKinsey Virtual Health Provider Survey, n = 60 health system executives

Source: *McKinsey*

Why does this matter? Well, Teladoc already has a footprint. In January, Teladoc entered the hospital and health system segment in a big way via its InTouch acquisition. As of Q2'20, it's in 60 of the top 100 hospitals in the US and saw 50% more client expansions and over 20% increase in new clients versus previous quarters. Furthermore, CMS recently expanded remote patient monitoring reimbursement codes which has allowed Livongo to be able to easily penetrate into the Medicare FFS market. With Teladoc's existing and expanding footing in the health systems market, it can help Livongo to break into that market faster than it would have by itself. In the HLTH 2020 conference, the Executive Chairman of Livongo, Glen Tullman, gave an update on the merger and announced a partnership with Teladoc health plan client Guidewell Health to bring Livongo for Diabetes to 50,000 Florida Blue members under their new cross-selling agreement. While he notes that they would have been able to sign them by themselves, **being under the Teladoc umbrella sped up that process significantly.**

As the pandemic continues to burden healthcare systems around the world, telemedicine has never been more important, creating a massive, growing base of members for Teladoc's new acquirees to sell into. Although Teladoc has acquired 12 companies over the last 7 years, Livongo is their biggest by far and the integration and effects of which will continue to be felt for years to come.



Our acquired companies are actively selling into our legacy client base and every major product we have developed is selling into an acquired company

Source: Teladoc Investor Presentation

Potential Synergies:

On the Teladoc side, having Livongo not only confers an advantage against telemedicine competitors like Amwell (which mainly focuses on the health systems market), but also allows Teladoc to improve engagement without hurting its gross margins. Utilization has always been a problem for Teladoc, which mainly derives over 90% of its total revenues from its PMPM + visit fees model (around \$1.02 PMPM + \$45 per visit). Pre-COVID utilization was under 10% and in its most recent quarter, rose to 16%, not great numbers compared to its competitors. This was driving some clients that questioned what they were paying for to demand visit-fee only contracts, which would lower predictability and be a significant hit to revenue unless utilization increased dramatically. Since visit-fee margins are significantly lower than PMPM, gross margins would also take a hit if they ramped up utilization.

So, although US paid membership was around 51 million members, it could barely monetize them. With Livongo, Teladoc gains a wide moat, a better way to monetize its member base (Livongo charges \$75 PMPM for diabetes alone, \$35 PMPM for prediabetes, \$39 PMPM for hypertension) while Livongo gets the provider network to provide a fully virtual end-to-end experience, and a significantly accelerated go-to-market with only 25% of client overlap.

| | Teladoc HEALTH | Livongo® | Teladoc HEALTH + Livongo® |
|--|----------------|----------|---------------------------|
| Market leading distribution and position | ✓ | ✓ | ✓ |
| Proven total-cost-of-care impact, with demonstrated quality and outcomes | ✓ | ✓ | ✓ |
| Leading consumer engagement and marketing approaches | ✓ | ✓ | ✓ |
| Scalable, technology-enabled platform | ✓ | ✓ | ✓ |
| Largest virtual care delivery network across 450+ specialties | ✓ | | ✓ |
| Global reach, with customers in 175+ countries | ✓ | | ✓ |
| Deep connectivity to in-person care delivery ecosystem | ✓ | | ✓ |
| Automated, one-to-many delivery model across multiple conditions | | ✓ | ✓ |
| Behavioral science-based engine that drives personalized results | | ✓ | ✓ |
| Actionable, data-driven clinical insights at scale | | ✓ | ✓ |
| World's first integrated, proactive virtual delivery system | | | ✓ |

Source: Teladoc Investor Presentation

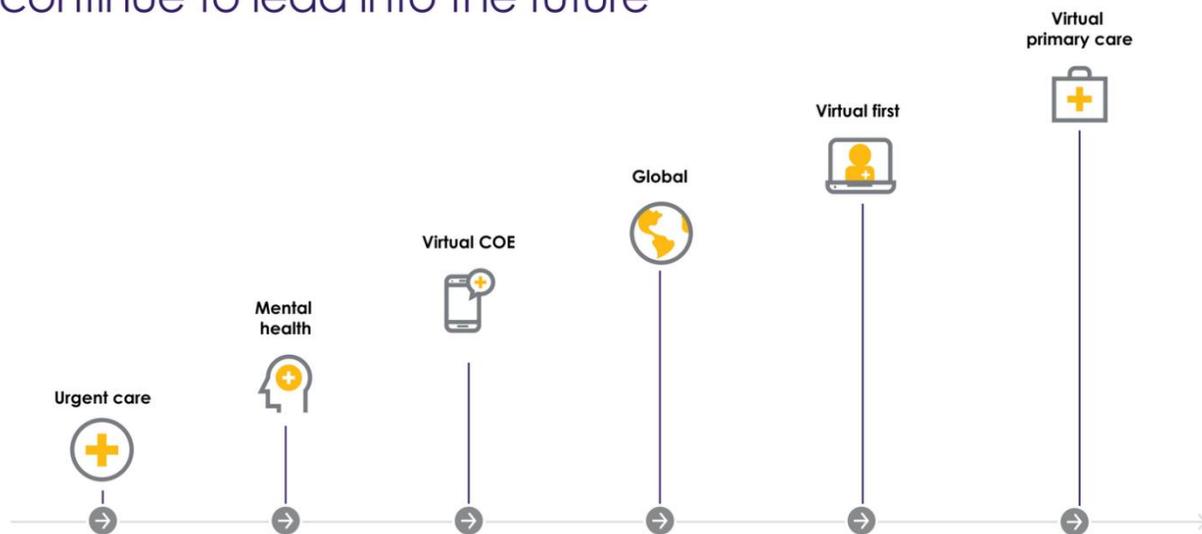
When evaluating these businesses, it's important to consider where they are able to complement each other and produce a better overall user experience.

On the patient side, having an end-to-end virtual care experience brings increased convenience from a single access point, seamless escalation to a Teladoc physician for acute care, and creates a **powerful feedback loop when they leverage the continuous, rich data stream that Livongo provides to deliver personalized care**. Data from Teladoc's 10 million annual visits (in 2020) can also be combined with Livongo's existing 750 million digital interactions to further fuel the machine learning algorithms powering its recommendation engine. As AI continues to play a larger role in healthcare, such a **massive dataset is becoming increasingly valuable**.

On the client or provider side, having the most comprehensive remote monitoring and telemedicine services under one interface and one brand greatly improves the value proposition of both. While telemedicine can reduce time wasted from no-shows, physicians are still going to be spending a while with each patient. However, the continuous monitoring that Livongo provides enables providers to **identify and dedicate their precious resources to the patients that need it the most**. This is especially relevant as the US is projected to face a shortage of between 54,100 and 139,000 physicians by 2033.

Furthermore, interoperability is still a challenge, with fewer than 50 percent of health systems reporting that they are integrating information with the main issue being with integrating third-party data within existing workflows. Health systems' approach to digital transformation is often as fragmented as the healthcare system itself with many digital engagement tools for various areas of the patient experience, each owned by different stakeholder groups. This results in higher costs to configure and set-up each tool and train employees in new processes. There are further costs with process inefficiencies as providers deal with complicated interfaces and admin work, driving an increasing number of physician burnouts and taking away valuable time that could be spent on delivering care. **Bundling several complementary products and producing a superior user experience** is a pattern common to many successful companies and the best acquisitions often create significant value for all stakeholders.

Teladoc has driven the evolution of virtual care and will continue to lead into the future



Source: Teladoc Investor Presentation

The merger also opens the door for redefining care delivery through services like Virtual Primary Care. Teladoc launched a successful pilot in Q2'20 and was met with a promising response - a very wide array of clinical diagnoses were made and patients overwhelmingly recommend it with a remarkable NPS of +95.

Financials:

The combined entity currently trades at a very reasonable 32x TTM revenues and 19x next year's consensus estimates. On a pro forma basis, both grew TTM revenues 52% year-over-year at a \$974 million run rate with a gross margin of 67% and an adjusted EBITDA margin of 8%. They are projecting 40-45% pre-synergy revenue growth next year and a 30-40% CAGR through 2023, as well as an adjusted EBITDA margin of 15-18% by 2023 expanding at 200-300 basis points annually. They expect \$100 million of revenue run-rate synergies by 2022 and \$500 million by 2025 which is likely quite conservative. Using estimates from their investor presentation, Teladoc is only estimating 13,000 new Livongo enrollees by 2022 and 147,000 in total in 5 years. Furthermore, only 55% of their \$500 million estimate by 2025 includes cross-selling. That's \$275 million or 305k (275M / 12 months / \$75 PMPM) Livongo for Diabetes members! That's not taking into account Livongo cross-selling into Teladoc which makes up half of that \$275 million. There will be even more synergies from additional upsell of those new Livongo members across more conditions and Teladoc's accelerated market share growth as a result of having a winning value prop with remote monitoring thus beating out point solutions like Amwell.

Cross-Sell of Existing Products

- Sell Teladoc and Livongo products across existing direct-to-employer and health plan relationships
- Expand Livongo into Teladoc Small & Medium Business, Managed Medicaid, and Hospital & Health System segments
- Develop an integrated Behavioral Health product with complementary Teladoc and Livongo assets and distribute within both existing customer bases

Referrals

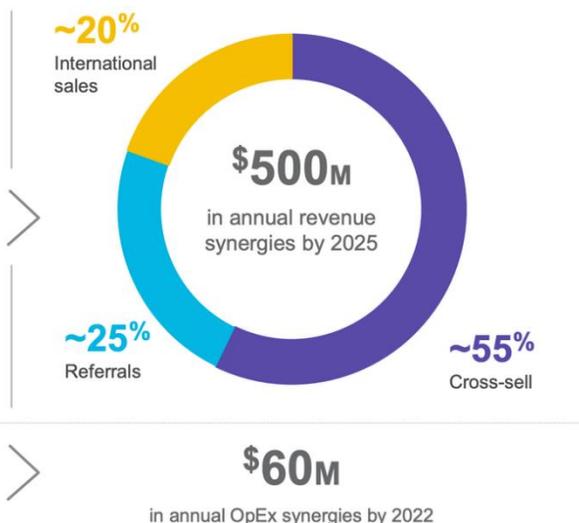
Increase enrollment and utilization by referring individuals across Teladoc and Livongo products (when they have access to both), and amplify overall engagement and retention

International Sales

Use Teladoc international salesforce to drive sales of Livongo products to international insurers, employers and governments

OpEx Reduction

Reduce run-rate costs by combining the two entities



Source: Teladoc Investor Presentation

So how large might the opportunity really be? Looking at Livongo's New Jersey case study and the enrollment numbers they provided in their 2019 annual report, we can extrapolate how the national opportunity might look like: 6% have diabetes, 17% have hypertension and a 35% enrollment rate after 12 months. So, if we apply that the Teladoc's 51.5M members* 0.75 to account for overlapping clients *0.06 with diabetes *0.35 enrollment rate = 811,125 additional potential members right now. The enrollment rate is >47% for fully optimized clients and the wider US population with diabetes is closer to 10% so those estimates are likely quite conservative. Even **capturing 1.575% of Teladoc's current paid membership nets 811,125 new members** which can make a huge difference since Livongo is charging \$75 PMPM for diabetes alone. As previously mentioned, their first cross-sale, Florida Blue, is estimated to bring 50,000 potential Livongo for Diabetes members. If we factor in a 35% 12-month enrollment rate, that's already 17,500 more Livongo members which already exceeds their 13,000 2022 estimate.

Comps:

| Ticker | Name | Price | FD Shares Outstanding | Market Cap (\$Bn) | Enterprise Value (\$Bn) | Sales (\$mm) | | | Sales Growth Y/Y % | | Gross Margin % | EV/Sales | |
|------------------------------|-----------------|-----------|-----------------------|-------------------|-------------------------|-----------------|-----------------|-----------------|--------------------|--------------|----------------|--------------|--------------|
| | | | | | | CY2019 | CY2020 | 2021e | CY2020 | CY2021 | | CY2020 | CY2021 |
| Healthcare Disruptors | | | | | | | | | | | | | |
| TDOC | Teladoc | \$ 215.00 | 165845 | 35.66 | 36.14 | \$ 723 | \$ 1,356 | \$ 1,913 | 87.6% | 41.1% | 67.0% | 26.65 | 18.89 |
| AMWL | Amwell | \$ 32.00 | 267304 | 8.55 | 9.03 | \$ 149 | \$ 231 | \$ 258 | 55.0% | 11.7% | 43.0% | 39.11 | 35.01 |
| ONEM | OneMedical | \$ 32.00 | 149900 | 4.80 | 4.37 | \$ 276 | \$ 334 | \$ 436 | 21.0% | 30.5% | 35.1% | 13.08 | 10.02 |
| ACCD | Accolade | \$ 38.00 | 56628 | 2.15 | 1.93 | \$ 132 | \$ 157 | \$ 195 | 18.9% | 24.2% | 43.7% | 12.29 | 9.90 |
| HCAT | Health Catalyst | \$ 33.00 | 45617 | 1.51 | 1.32 | \$ 155 | \$ 180 | \$ 216 | 16.1% | 20.0% | 49.6% | 7.31 | 6.09 |
| GDRX | GoodRx | \$ 54.00 | 408600 | 22.06 | 22.63 | \$ 388 | \$ 536 | \$ 731 | 38.1% | 36.4% | 95.6% | 42.23 | 30.96 |
| Median | | | | 6.68 | 6.70 | \$ 216 | \$ 283 | \$ 347 | 29.6% | 27.4% | 46.7% | 19.86 | 14.45 |
| Average | | | | 12.45 | 12.57 | \$ 304 | \$ 466 | \$ 625 | 39.5% | 27.3% | 55.7% | 23.44 | 18.48 |
| High-Growth SaaS | | | | | | | | | | | | | |
| TWLO | Twilio | \$ 295.00 | 169300 | 49.94 | 47.96 | \$ 1,134 | \$ 1,603 | \$ 2,045 | 41.4% | 27.6% | 52.8% | 29.92 | 23.45 |
| DOCU | DocuSign | \$ 215.00 | 203700 | 43.80 | 43.60 | \$ 951 | \$ 1,346 | \$ 1,773 | 41.5% | 31.7% | 74.7% | 32.39 | 24.59 |
| COUP | Coupa Software | \$ 297.00 | 75569 | 22.44 | 22.45 | \$ 379 | \$ 489 | \$ 618 | 29.0% | 26.4% | 63.2% | 45.92 | 36.33 |
| TEAM | Atlassian | \$ 204.00 | 259700 | 52.98 | 51.71 | \$ 1,770 | \$ 2,134 | \$ 2,696 | 20.6% | 26.3% | 83.3% | 24.23 | 19.18 |
| OKTA | Okta | \$ 217.00 | 144300 | 31.31 | 30.48 | \$ 570 | \$ 784 | \$ 1,021 | 37.5% | 30.2% | 73.7% | 38.88 | 29.85 |
| VEEV | Veeva Systems | \$ 291.00 | 163500 | 47.58 | 46.08 | \$ 1,084 | \$ 1,394 | \$ 1,672 | 28.6% | 19.9% | 72.0% | 33.06 | 27.56 |
| Median | | | | 45.69 | 44.84 | \$ 1,018 | \$ 1,370 | \$ 1,723 | 33.3% | 27.0% | 72.9% | 32.73 | 26.08 |
| Average | | | | 41.34 | 40.38 | \$ 981 | \$ 1,292 | \$ 1,638 | 33.1% | 27.0% | 70.0% | 34.07 | 26.83 |

Teladoc currently trades at an almost 50% discount to next year's estimates against its closest peer Amwell. I believe this is unjustified as Teladoc boasts significantly better revenue growth and gross and net margins, and a superior competitive position and TAM as previously discussed. GoodRx should continue to trade at a premium to Teladoc however, given its better gross margin profile and profitability.

Furthermore, I believe the SaaS comparison is warranted; although 25% of Teladoc's standalone revenue is derived from visit-fees, the Livongo merger improved visibility, is accretive to gross margins, and expanded Teladoc's competitive positioning and TAM considerably as previously discussed by providing the ability to provide more longitudinal care and experiment with new payment models. In addition, because Livongo's engagement rates are much higher and ROI is transparent and easily measured, Teladoc should face less pressure to adopt unfavourable contracts.

However, to account for integration risk, I will apply a 10% discount to the SaaS peer group average, leading to an implied share price of \$285.36. Given that I believe merger synergies are significantly understated and Teladoc already forecasting 40-45% growth, the consensus 2021 revenue estimate of \$1.91 billion or 41.1% growth is likely to prove highly conservative.

Risks:

The most common arguments against Livongo and Teladoc are to do with the plethora of competition. I've already explained how Livongo differentiates Teladoc and vice versa from smaller competitors and off-the-shelf consumer products but what about established healthcare giants such as United Health and Epic acquiring their way into the space like Teladoc has and selling into their networks? Managed Care Organizations surely would want to lower premiums they payout, and it's a very lucrative, fast-growing space that their clients are demanding. Epic recently launched its own telemedicine offering powered by Twilio directly embedded in its own electronic health record (EHR) systems and UnitedHealth via Optum also acquired a number of telehealth and remote-monitoring start-ups.

However, these larger players will be hampered by a number of challenges. EHR systems like Epic are notoriously hard to work with and interoperability is still a challenge, meaning data is siloed and it's hard to integrate external information to deliver true whole-person care. Furthermore, they won't have the provider network that Teladoc

has since they operate on a health system level. Although there has been a great deal of consolidation to achieve economies of scale, there are over 626 health systems in the US. People generally have multiple providers, each with different specialties, and information blocking is still quite common. It should be as easy to change providers as it is to switch banks, after all, it's our medical data. But progress is slow, even with recent changes implemented during the pandemic. Larger, innovative institutes like Kaiser Permanente with many different specialists can certainly provide an adequate level of virtual care but for smaller players, it would be much more efficient to partner and gets referrals for in-person visits from Teladoc's national network. Similar to the dynamics that have made many cloud companies very successful, where smaller organizations often see much better ROI from paying for a managed service.

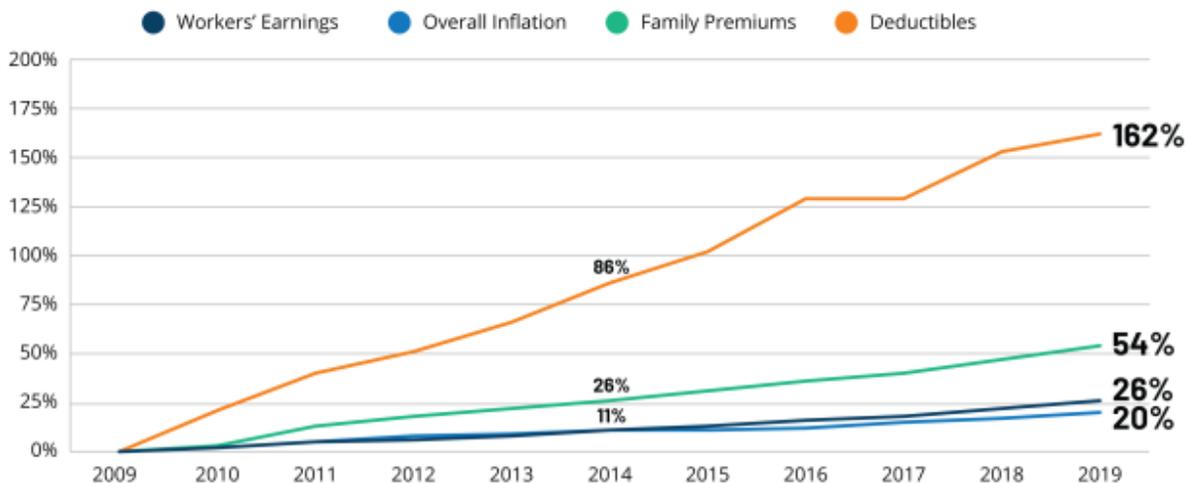
Imagine you're a small hospital system and you get a surge in telehealth visits. You don't have the staff to perform on-demand consultations while Teladoc can leverage a physician halfway across the country who is online. Also, not all hospitals use Epic and not everyone is covered under Epic, so its patient and provider pool are inherently limited compared to Teladoc. This is especially true for multinational organizations that want to buy one virtual care service across their global operations. Furthermore, as **virtual care becomes increasingly normalized, we will be seeing a lot more patients who do most of their visits online**, just like online shoppers who buy most of their stuff on Amazon, **hence increasing the value of accessing Teladoc's patient pool**.

Hospitals also won't be so keen to change because by shifting to a paradigm that focuses on preventative care (via remote monitoring), they will lose revenue under a fee-for-service system. They can make ten or twenty times more if a patient comes into the emergency room for a bee sting instead of going online, even though most consumers would be better off starting with an online visit. Individual providers, meanwhile, did not have a problem with going on Teladoc to make extra money on the side, much like taxi drivers turning to Uber. But it was hard to get institutions excited about changing something when their revenue depends upon not changing it. So, the healthcare industry failed to transform itself until COVID-19 forced them to. Now that people have a taste of what could be, there's **no going back**.

As more health systems shift to this new model because they lose patients to Teladoc, they will be forced to change but for many, that means partnering with Teladoc to get referred patients for in-person care. Again, Teladoc enables white-labeling and has expanded its capabilities in the area significantly with InTouch because it understands that in-person visits aren't going away just like brick and mortar stores aren't going away. The center of gravity is just going to shift online, and Teladoc wants to help traditional providers make that transition. Jefferson Health, which serves over 2.6 million patients annually, leveraged Teladoc's configurable toolkit to power its telehealth platform JeffConnect. Jefferson not only liked its customizability and breadth of capabilities but believed in Teladoc's product roadmap, which is increasingly paying off. This is just one example of why it makes more sense to partner with Teladoc over building an in-house solution or going with a less capable competitor.

As for health insurance companies like United Health, they are incentivized to keep premiums rising. In 2019, the average family premium for employer health insurance was \$20,576, representing a 54% increase over the last decade, according to the Kaiser Family Foundation. During the same time period, the average employee premium contribution has risen by 71% to approximately \$6,015. Employers are buying services like Livongo and patients signing up for it because they are sharing a larger burden of the costs and anything that helps them save money and become healthier makes absolute sense. With an ever-increasing number of people without coverage, PBMs and MCOs are increasingly being circumvented by services that provide **clear ROI with a transparent cost structure**.

Premiums and Deductibles Rise Faster than Worker's Wages Over Past Decade



Source: *KFF 2019 Employee Health Benefits Survey*

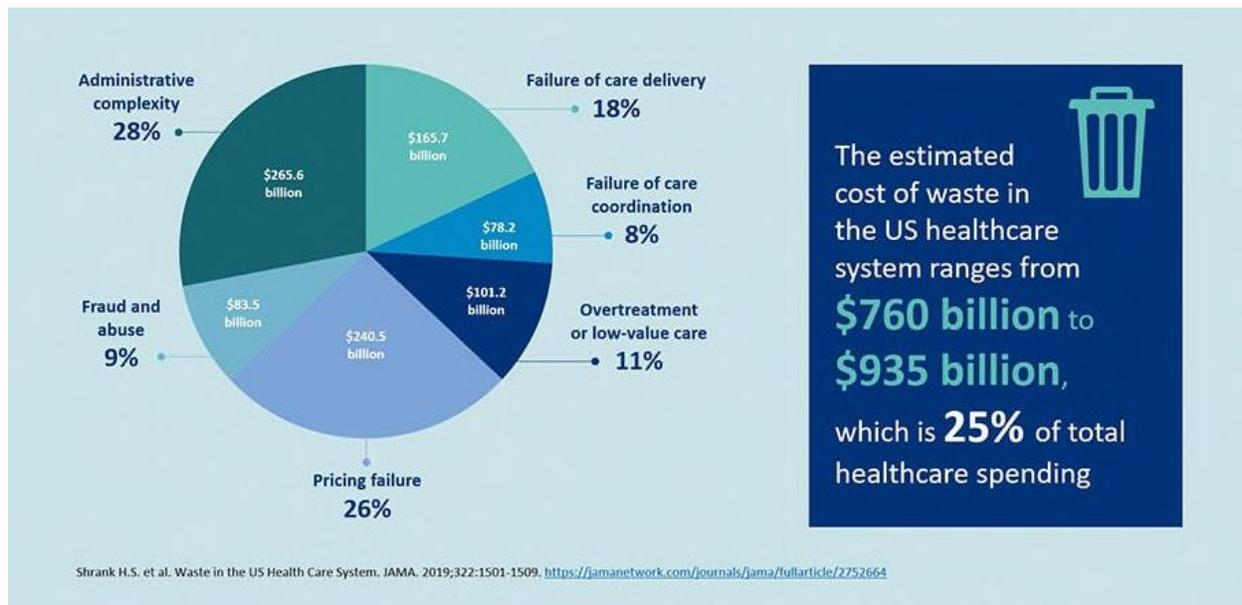
There was a concern with continuous glucose monitoring companies like Dexcom expanding into the software side as well, but they would have a hard time building their own service because they would only be able to enter diabetes and competitors like Abbott would cut them off, an issue common to PBMs, MCOs, and EHR providers as well. If an employee is covered under United but switches coverage to Anthem, what happens to their data? Same thing in enterprise software: the big cloud may choose to have their competing solutions, yet the smaller players are still gaining market share because companies are increasingly adopting multi-cloud strategies and want to avoid vendor lock-in and they have more focus and innovation.

Big Tech companies themselves have seen mixed success in previous attempts to disrupt healthcare, oftentimes underestimating the challenge and failing to collaborate with healthcare professionals. When they do attempt to partner with industry stakeholders, they face a litany of red tape. Google partnered with Ascension Health last year to store and analyze up to 50 million Americans' medical records without their knowledge, prompting public backlash and increased regulatory scrutiny. In the future, it may prove wise for these companies to look for more ways to partner with digital health companies like Teladoc, perhaps in referring patients or sharing data.

Finally, as I mentioned before, there are significant barriers to entry in remote monitoring. Before buying Livongo, Teladoc evaluated building it in-house as well as acquiring three smaller RPM start-ups. But they didn't because they were concerned about missing the market. If Teladoc couldn't do it and paid such a premium for Livongo, despite having a massive 51 million-member base to distribute into, then **there aren't many other companies that I think can come close.**

Value-Based Healthcare:

Thus far, I've established why the merger is likely to produce a superior consumer experience and accelerate the adoption of the combined offerings while establishing a wide moat that will be difficult for competitors to copy. Now, let's take a step back and consider how the combined company can contribute to improving the healthcare system. In the introduction, I explained that the trend of healthcare costs being out of tune with the improvement of outcomes was leading to an increasing desire for change, of which COVID-19 has now catalyzed. About a quarter of health care spending, or a staggering \$760 to \$935 billion, can be considered waste, according to a [2019 report by JAMA](#). Further, it quantifies potential savings between \$191 to \$286 billion. **A significant cause of waste comes from traditional fee-for-service payment models**, where providers are incentivized to provide as many services to as many patients as possible, and not measured based on the quality of patient outcomes.



Source: *Philips*

However, the merger enables Teladoc to effectively implement **value-based, fixed fee payment models** such as capitation, shared savings, or bundled payments that promise better outcomes, at a lower cost.

Under capitation, providers are paid a fixed amount per patient across a wide population whereas bundled payments involve paying a fixed fee for providing all the care necessary to manage a patient's specific condition. Michael Porter and Robert Kaplan of Harvard University, acknowledge that while capitation forces providers to manage costs better and improve population health, it incentivizes providing fewer services, doesn't measure outcomes at a patient-level nor reflect different patient-risk profiles, and encourages further consolidation and lack of choice. Indeed, capitation was quite popular in the late 1990s and did not work out, although technology has improved and providers are made more accountable for outcomes since then.

Nevertheless, they argue that **bundled payments is a much better model**, and it should be characterized by five criteria:

1. Payment covers the full cost of treating a condition including common comorbidities
2. Payment is tied to producing better patient outcomes
3. Payment is adjusted for different patient-risk profiles

4. Payment leaves enough profit for providing effective care
5. Providers are excluded from the responsibility for managing care outside of the condition with a stop loss for outlier cases

Such a model would encourage the creation of **integrated, multidisciplinary care teams** that work together to improve cost efficiency at each step of the care journey and provide personalized care that creates better patient-level outcomes. However, there are a number of challenges with the implementation of bundled payments such as the difficulty of gathering data on outcomes and costs, assessing risk across patients, and breaking down silos to enable longitudinal care.

Teladoc, with an integrated platform, is well-positioned to expand its payment models though. Recent acquisitions have enabled it to provide services across the entire continuum of care and at any site of care. Furthermore, **without traditional barriers like geographic distance or separate institutional affiliations, Teladoc’s provider network covering 450 sub-specialties can seamlessly refer patients and consult each other on treatment plans.** Multidisciplinary care teams composed of primary care providers, Livongo health coaches, therapists, nutritionists, etc. can all collaborate on the same call for complex cases, informed by data, to get a holistic view of the patient’s health and thereby improve outcomes. This also naturally opens up opportunities for Teladoc to move further into digital pharmacy services, enabling Comprehensive Medication Management (bringing care teams together to optimize medications) and bolstering adherence.



New Clinical Services

- Virtual Primary Care
- Expanded Specialty Care
- Pediatric Mental Health
- Remote Patient Monitoring
- Expanded Chronic Condition Management



New Payment Models

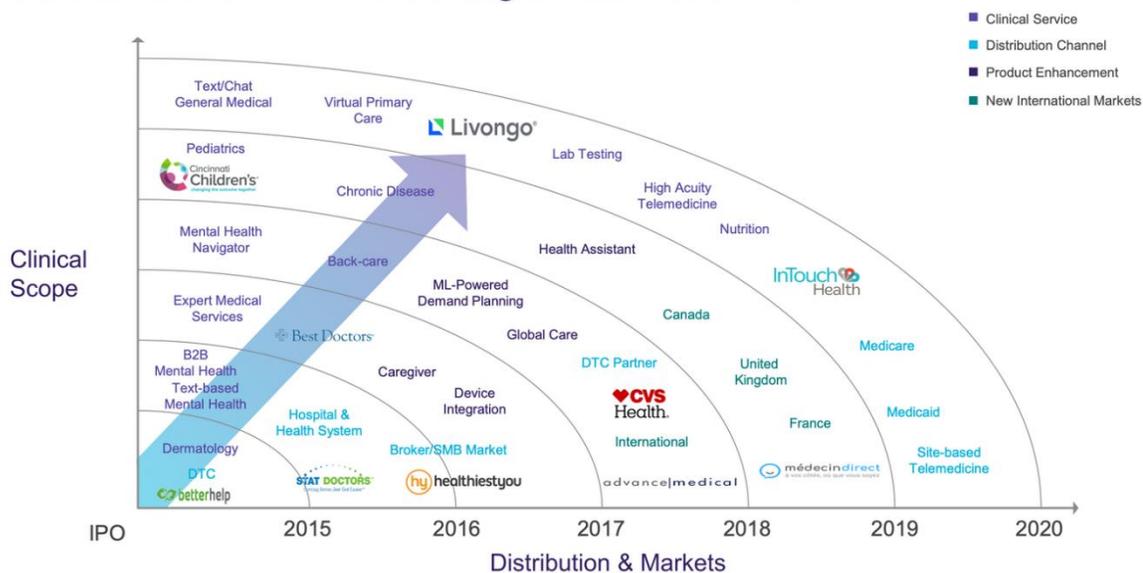
- Medicare/Medicaid FFS
- Value-based Care
- Gain Sharing
- Risk Sharing
- Int'l state-sponsored healthcare



New Care Settings

- Post-Acute
- Primary Care / Specialty Practice
- Retail Clinic
- Worksite
- Home-based Care

Execution of Teladoc Health’s Strategic Vision Since IPO

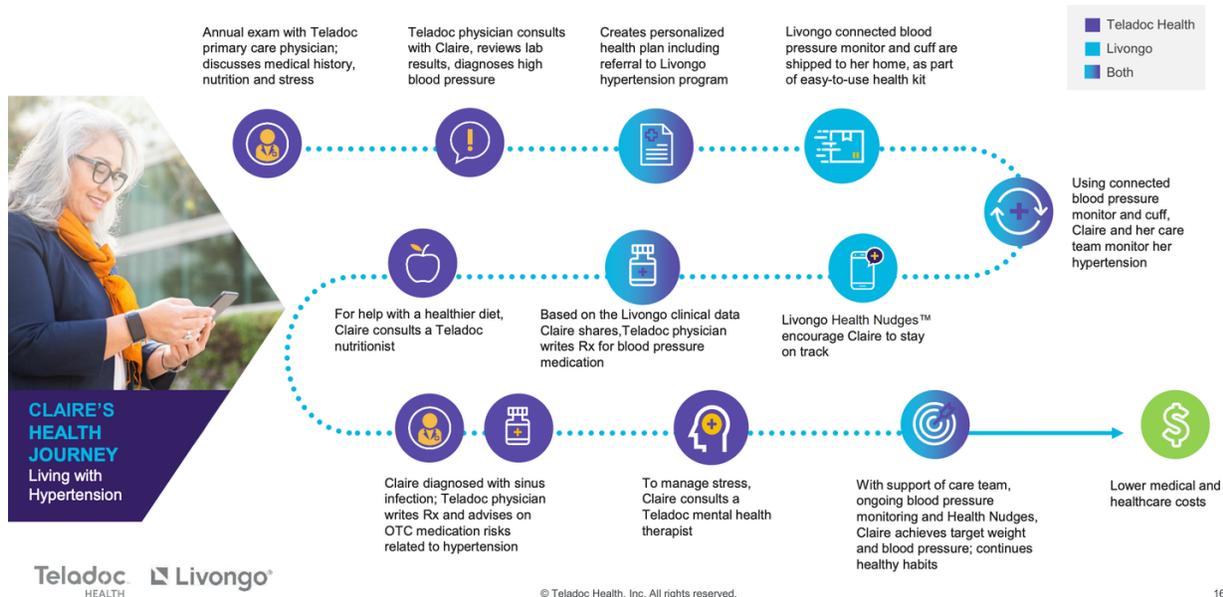


Source: Teladoc Investor Presentation

With regard to assessing risk and compiling data, that’s possible with the remote patient monitoring capabilities provided by Livongo. Teladoc could do particularly well with bundled payments **for chronic conditions and primary care**, where insurers previously had a hard time offering transparency in outcomes and savings realized. With half of Americans having at least one chronic condition and their healthcare utilization being twice as high as those without it, it’s clear that significant savings can be realized in this area. In addition, it is especially receptive to virtual care delivery models with a study finding that 38% of in-person acute care visits could be done virtually, and rural areas having a higher prevalence of chronic conditions. Having multiple conditions covered under one entity also makes it easier to define scope and support the patient along the entire care continuum. **With its ability to offer personalized, longitudinal care and quantify outcomes using connected devices, Livongo puts Teladoc in a unique position to build the next frontier of care delivery.**

Livongo’s connected devices and health coaches empower patients to take control of their own health, with Teladoc physicians (or further escalation to an in-person visit) only intervening when the data indicates it’s needed, thus lowering costs. The physician will also be informed by a continuous stream of data that isn’t biased to a single snapshot in time and also have more time to dedicate to providing better care. Additionally, Teladoc has visibility over physician prescribing patterns, and can increasingly encourage awareness and use of generic alternatives, thus decreasing patients’ costs further.

Delivering Whole-Person Care for Better Health and Cost Outcomes



Source: Teladoc Investor Presentation

Teladoc’s management recently discussed at the Morgan Stanley 18th Annual Global Healthcare Conference the potential opportunity with National Healthcare Systems. The Singaporean Government is already showing initiative in this area and recently announced a partnership with Apple where they will pay citizens monetary rewards for staying healthy via the Apple Watch. Furthermore, in HBR article, Porter and Kaplan point out that single-payer systems are particularly well-positioned to transition to bundled payments. They mention that the county of Stockholm, Sweden, was able to achieve a 17% reduction in cost and a 33% reduction in complications over two years after introducing bundled payments for hip and knee replacements in healthy patients. In the US, CMS launched a mandatory bundled payment program for joint replacements in 2016, which covers 800 hospitals in 67 metropolitan areas, building on the success of the voluntary Bundled Payments for Care Improvement (BPCI) program.

Self-insured employers will drive the change with a desire to see **better ROI and transparency both in outcomes and cost-savings**. Since they have significant buying power, they can influence insurers to adopt it as well in order to remain relevant, otherwise they will go directly to Teladoc. By **tying the quality of outcomes and the costs to achieve them to provider profitability**, bundled payments allow market forces to reward more efficient providers and punish wasteful spending with lower margins and a loss of patients. As these efficient payment models gain traction, providers and healthcare systems will increasingly partner with Teladoc which will further accelerate the shift.

COVID-19 has also made clear the importance of transitioning to value-based delivery networks. Oak Street Health (OSH), a network of primary care centers providing value-based care to 80,000 Medicare beneficiaries across eight states was able to quickly adapt to the challenges of the pandemic and conduct 93% of visits by phone or video with wellness checks and delivering essential supplies. It was also able to institute additional preventative measures like mailing digital thermometers or pulse oximeters to track population health while traditional health systems waited for new reimbursement codes. Oak Street demonstrates how a value-based care delivery system might be more resilient and adaptable to future pandemics, by focusing on providing longitudinal primary care to

those with chronic conditions who are most susceptible to the virus, from the safety of their own homes. Unburdened by capital-intensive physical locations, and accelerated by the increased adoption of telemedicine and remote monitoring, **Teladoc has never had more impetus to partner with traditional providers and accelerate value-based healthcare.**

Conclusion:

The Teladoc - Livongo merger has created the **singular global, consumer-centered virtual care platform**. Together, they have formed the dominant category leader with a massive \$121 billion TAM, incredible optionality with the resources and vision to outbid everyone else, and a wide moat and unmatched value proposition.

Many of the most successful companies in the world began in niches and leveraged their competitive advantages to expand into adjacent markets: Amazon with books, Tesla with luxury cars, and Teladoc and Livongo are no exception, initially tackling urgent care and diabetes respectively with an unwavering commitment to delivering a superior consumer experience. Now, both are capable of becoming the **driving force behind the adoption of virtual care and new payment models**, creating a better health system at a time when the industry is ripe for disruption. It's a company that I not only like as an investment but am excited about as a healthcare consumer.