



Wearables and Quantified Self Market Map



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AGENDA

- 1. Why Wearables and Quantified Self?*
- 2. Wearables and Quantified Self Landscape*
- 3. Exercise Tech*
- 4. Sleep Tech*
- 5. All-Day Activity Tracking*
- 6. Nutrition Tech*
- 7. Mindfulness Tech*
- 8. Takeaways*

WHY WEARABLES AND QUANTIFIED SELF?

CURRENT STATE OF HEALTH

In general, people are not exercising enough, are not sleeping enough, are eating poorly, and are anxious/depressed. Companies that motivate users to develop healthier habits through actionable and accurate data collection are a solution to this problem.

Current State of Health

1

Exercise

- **53.3%** of US adults meet the CDC guidelines for aerobic physical activity
- **23.2%** of US adults meet the CDC guidelines for both aerobic and muscle-building activity
- **19.3%** of US population engaged in sports and exercise on a given day in 2019, on average
- Lack of exercise leads to increased risk of heart disease, type 2 diabetes, high blood pressure and/or cholesterol, cancer, and obesity

2

Sleep

- **35.2%** of US adults reported short sleep (<7 hours) in 2014
- Those who reported short sleep were more likely to be obese, more likely to have heart disease, more likely to be depressed, and more likely to have heart attacks and strokes
- **50-70 million** US adults have a sleeping disorder
- **30%** of US adults report short-term insomnia
- **10%** of US adults report chronic insomnia

3

Overall Health

- **42.4%** of US adults were obese in 2018, up from 30.5% in 2000
- **10%** of US adults meet fruit and vegetable recommendations
- **45%** of US adults have high blood pressure, and only ¼ of those with hypertension have their condition under control
- More than **100 million** US adults have diabetes or prediabetes
- **41.5%** of US adults reported recent symptoms of anxiety or depression in February 2021

<https://www.cdc.gov/nchs/fastats/exercise.htm>

<https://www.statista.com/topics/1749/physical-activity/>

<https://www.cdc.gov/chronicdisease/resources/publications/factsheets/physical-activity.htm>

https://www.cdc.gov/sleep/data_statistics.htm

<https://www.sleepassociation.org/about-sleep/sleep-statistics/>

<https://www.cdc.gov/mmwr/volumes/70/wr/mm7013e2.htm>

WEARABLES AND QUANTIFIED SELF PRODUCTS PROVIDE SUPERIOR VALUE



Wearables and other quantified self products provide superior insights, maintain user motivation over time, and are extremely convenient, providing value to users.

Key Value Propositions

1

Insights

- Wearables and other quantified self products offer superior insight into personal exercise, sleep, and general wellness data
- Allow for more educated decision making and achievement of health goals
- Professional and amateur athletes can track progress over time and improve performance
- Many products offer targeted recommendations for users, increasing the ease with which new habits are formed

2

Motivation

- Many exercise tech products allow users to compete against friends, family, and other users globally, increasing motivation to climb the leaderboards
- Can become form of social media or sense of community
- Many products offer live or recorded coaching to keep users motivated and on track
- Detailed tracking over time encourages users to continually improve even compared only against themselves

3

Convenience

- Exercise tech products allow users to avoid going to the gym, which is especially important going forward through Covid-19
- Sleep and activity tracking products allow effortless passive data collection, rather than users manually inputting data
- Nutrition and mental health products help users form positive habits
- Personalized insights and recommendations prevent users from having to deeply analyze data themselves

SUBSTANTIAL ROOM FOR GROWTH

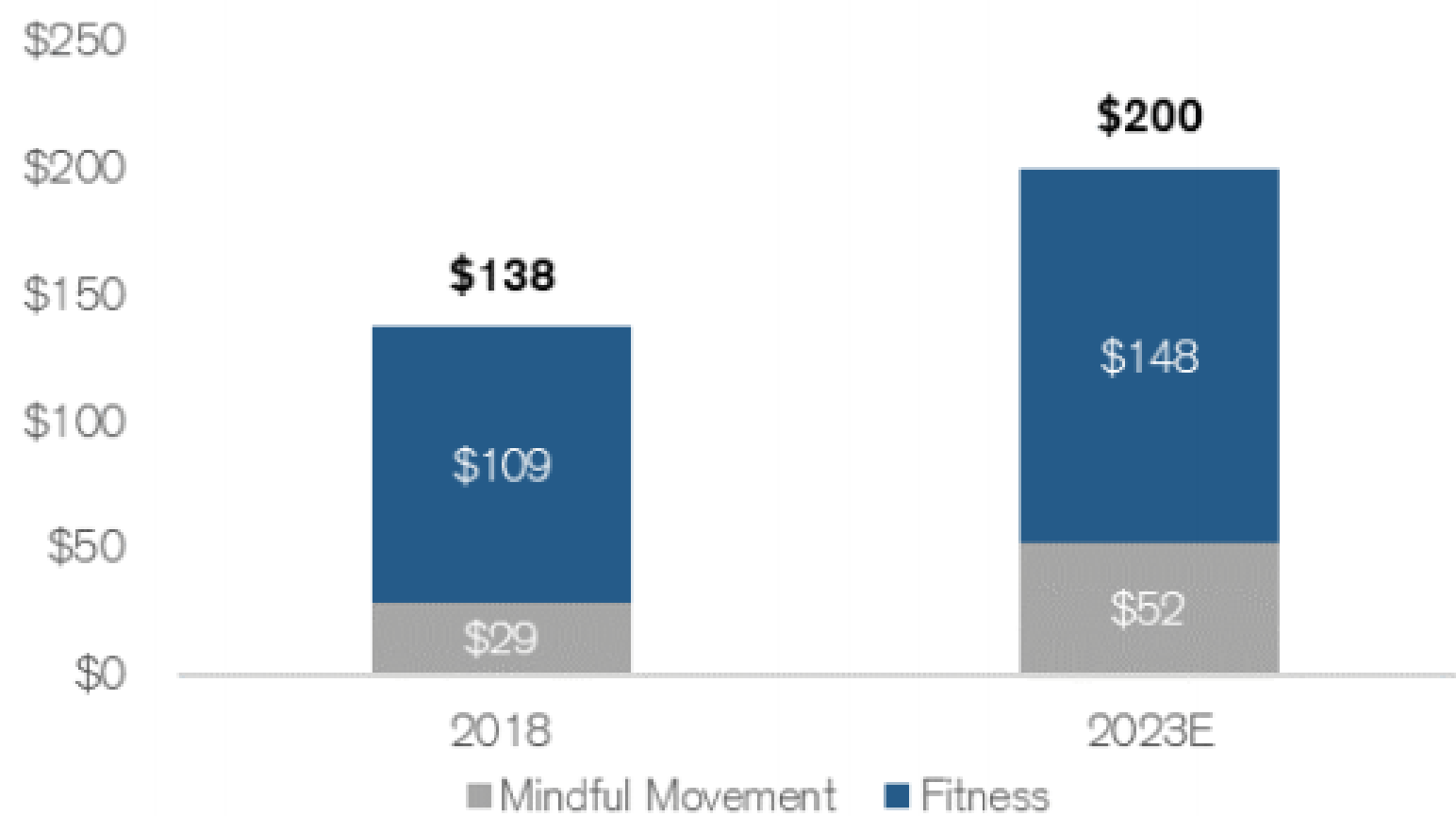
The current market penetration of wearables and quantified self apps leaves ample room for continued growth.

Key Statistics

Large TAM

- Global market size of fitness and mindfulness tech (wearables and apps) estimated to reach \$200B in 2023

Figure 1: Global Fitness and Mindful Movement Market Estimated to Grow +8%; \$200b by 2023 (billions)

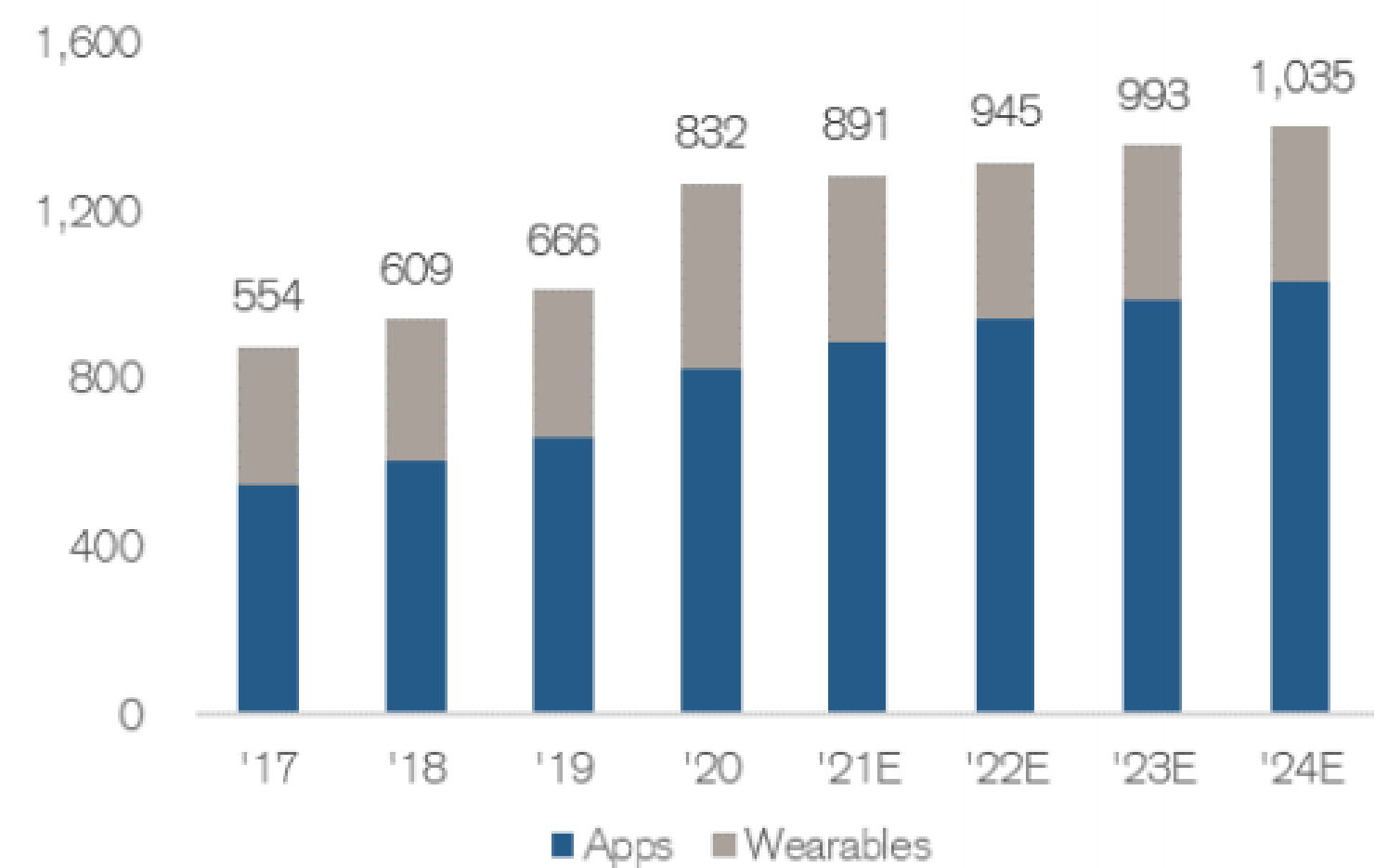


Source: Global Wellness Institute estimates

Low Adoption

- In 2019, only 1/3 of Americans used either a wearable device or a mobile app to track fitness/health goals, and those that do find them helpful

Figure 16: Fitness Tech Users Expected to Grow, Global Users of Apps + Wearables Top 1bn in '24 (millions)



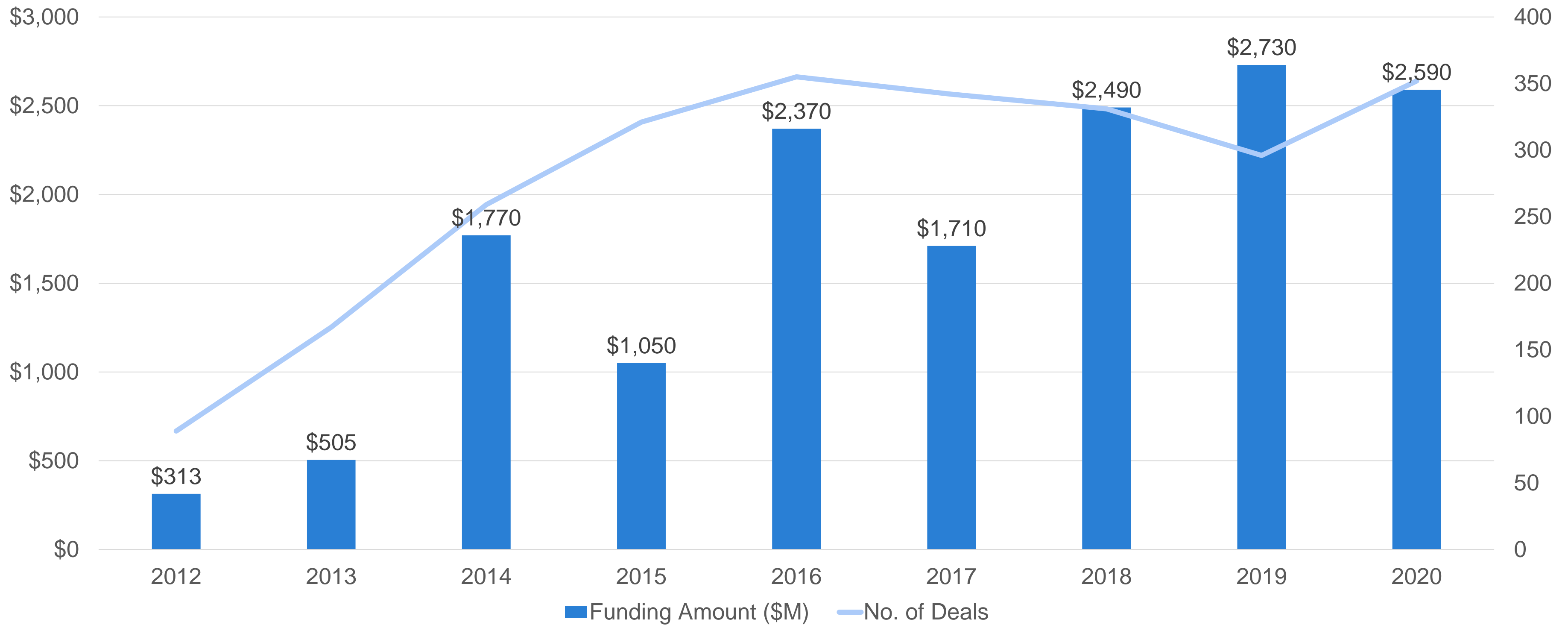
Source: Statista Digital Market Outlook – Fitness, Credit Suisse Research

VC FUNDING IN WEARABLES AND QUANTIFIED SELF



VC Funding in the space has increased in recent years.

Total VC Funding (2012-2021)



Pitchbook



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WEARABLES AND QUANTIFIED SELF LANDSCAPE

WEARABLES AND QUANTIFIED SELF LANDSCAPE

Exercise Tech



Sleep Tech



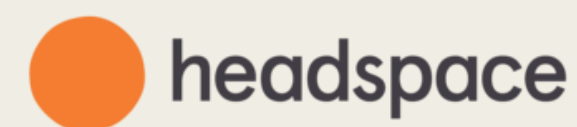
All-Day Activity Tracking



Nutrition Tech









Mindfulness Tech



SAMPLE EXITS

Recent Exits In Selected Subverticals

Company	Category	Acquirer/IPO/SPAC	Valuation	Date	Current NTM Sales Multiple
 PELOTON	Exercise Tech	IPO	\$8.10B	9/26/2019	9.4x
 MIRROR	Exercise Tech	Lululemon Athletica (NAS: LULU)	\$482M	7/7/2020	N/A
 Owlet	Sleep Tech	SPAC	\$1.39B	7/15/2021	13.5x
 Casper	Sleep	IPO	\$476M	2/6/2020	0.6x
 fitbit	All-Day Activity Tracking	Alphabet (NAS: GOOGL)	\$2.10B	1/14/2021	N/A
 myfitnesspal	Nutrition Tech	Under Armour (NYSE: UA)	\$475M	3/17/2015	N/A

EXERCISE TECH

EXERCISE TECH MARKET OVERVIEW

Peloton is Only Major Public Comp

- There are a few competitors who are subsidiaries of larger companies, but Peloton is the only major public company
- Mirror is a direct competitor to Tonal and Tempo, but is owned by Lululemon
- MapMyFitness and Runtastic were both acquired before 2016 and are effectively fitness journals – they provide workout plans and you manually enter data as you complete them

Notable Public Players



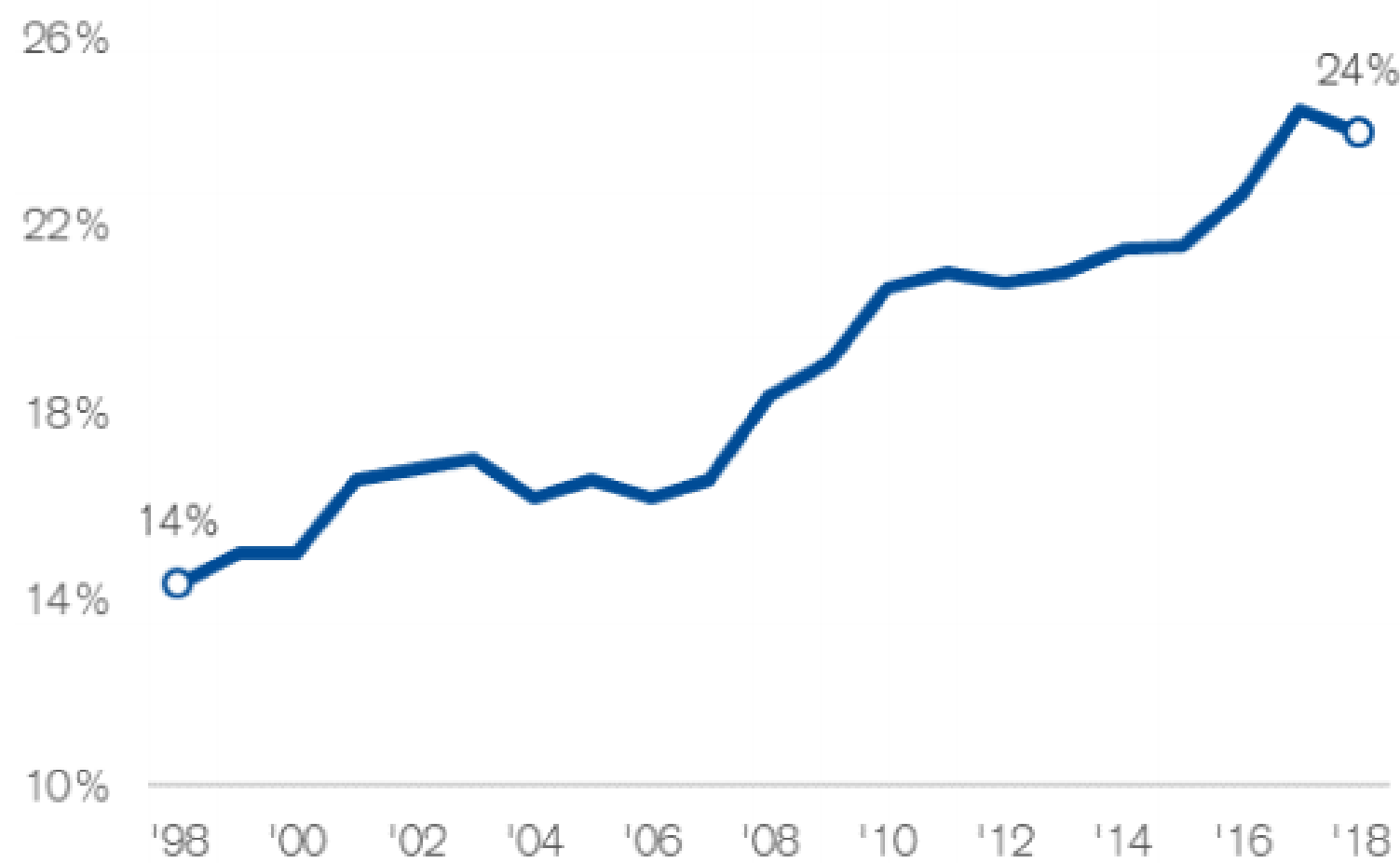
Takeaway

- Any exercise tech company that goes public will be compared to Peloton, and venture investors will most likely look at them in that light during private funding rounds as well

MORE PEOPLE ARE FOCUSING ON EXERCISE

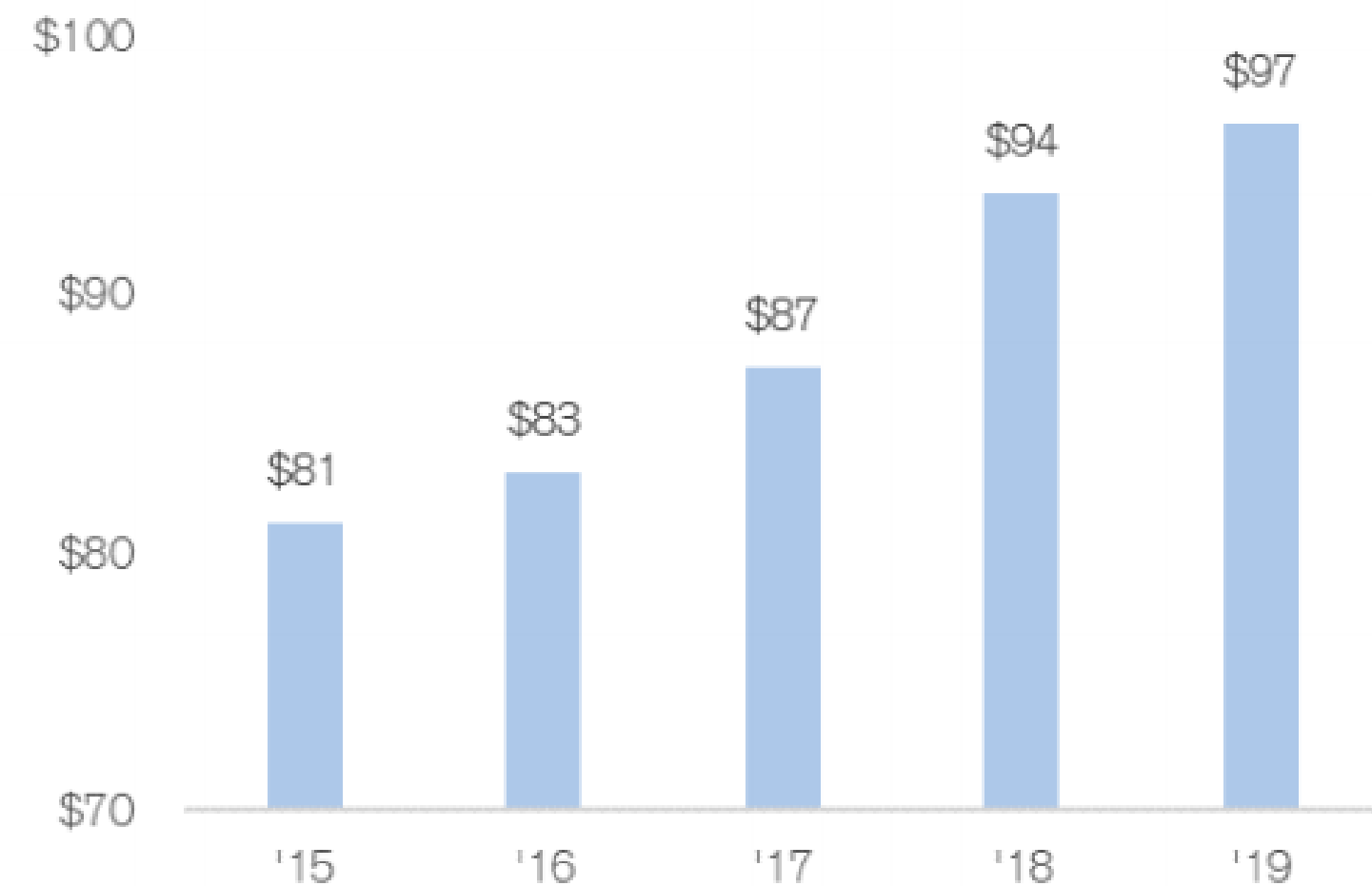
People are increasing the time and money devoted to regular exercise.

Figure 8: Steady Rise in Proportion of U.S. Adults Meeting Both CDC Physical Activity Guidelines



Source: National Health Interview Survey, U.S. CDC/NCHS, Physical activity guidelines established in 2008 and include times spent doing aerobic and muscle-strengthening exercises

Figure 9: Global Health Club Revenue Continues to Climb; 184m Members Supported a \$100b Market in 2019



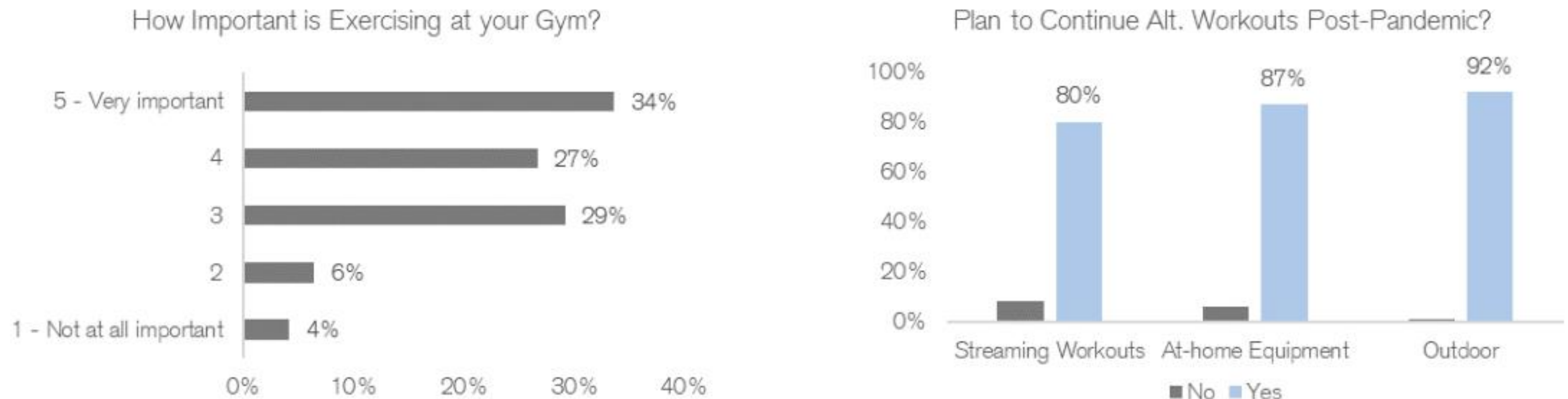
Source: 2020 IHRSA Global Report

PANDEMIC TAILWINDS WILL CONTINUE AFTER LOCKDOWNS CEASE



Despite concerns that at-home workouts have only seen growth because of the pandemic and will return to pre-covid levels once it is over, surveys indicate that alternative workouts are here to stay.

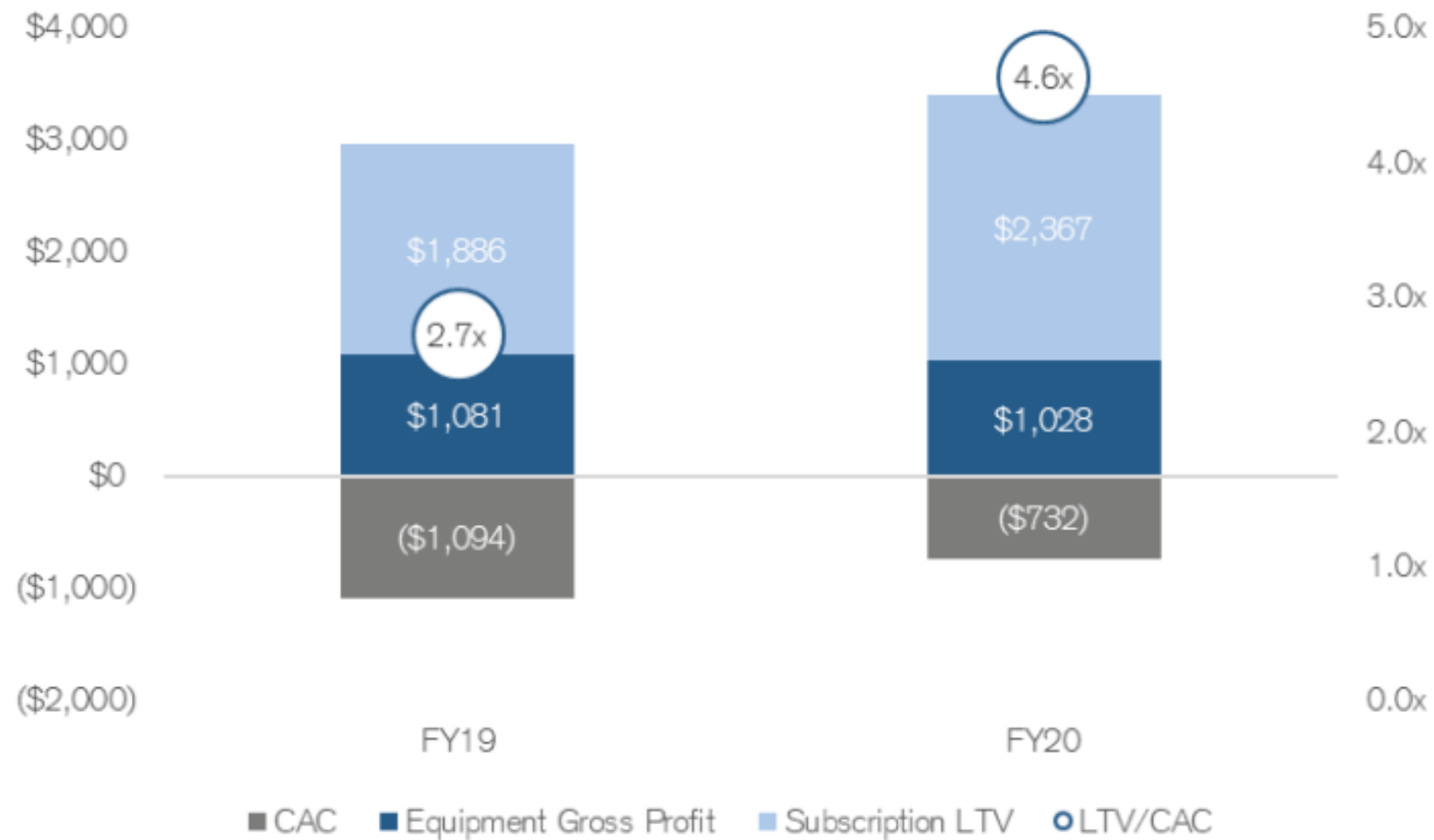
Figure 40: Members Find Gyms Important, but Overwhelming Majority Plans to Continue Alternative Workouts post-Pandemic



Source: CS 2020 Fitness Survey

WHY PELOTON IS SO SUCCESSFUL

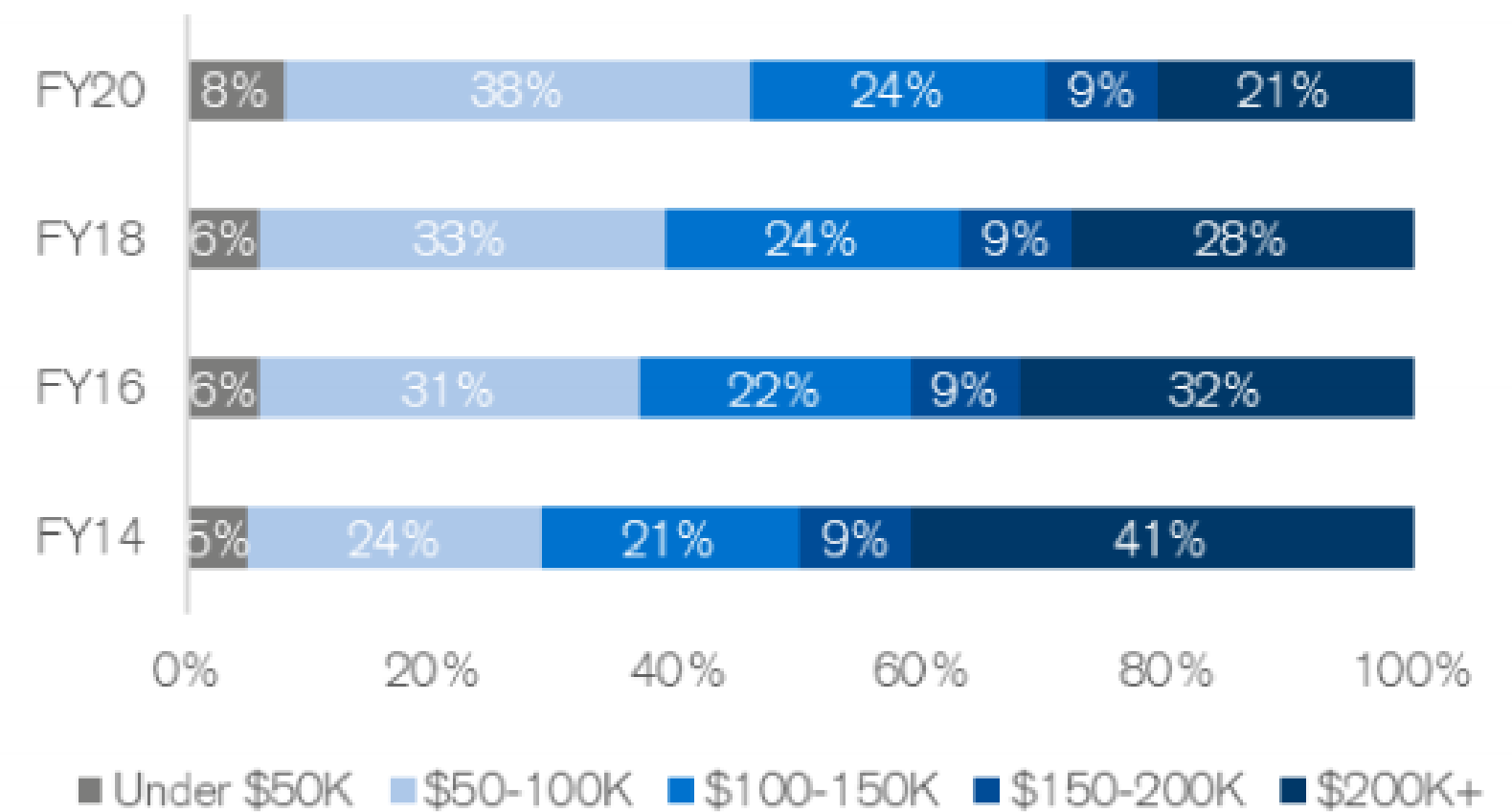
Figure 26: Near-Immediate Payback of CAC Underpins Attractive User Economics



Source: Company data, Credit Suisse estimates, All calculations per user, Implied subscription life of 13 yrs. derived from churn, LTV discounted at 8%, D&A + SBC costs excluded, Connected Fitness subs only

Combined **hardware + subscription model** means Peloton achieves CAC payback on day one with just the bike purchase

Figure 5: Peloton Broadens Appeal; Customer Base Becoming More Diverse (% Peloton Bike Customers by Income Bracket)

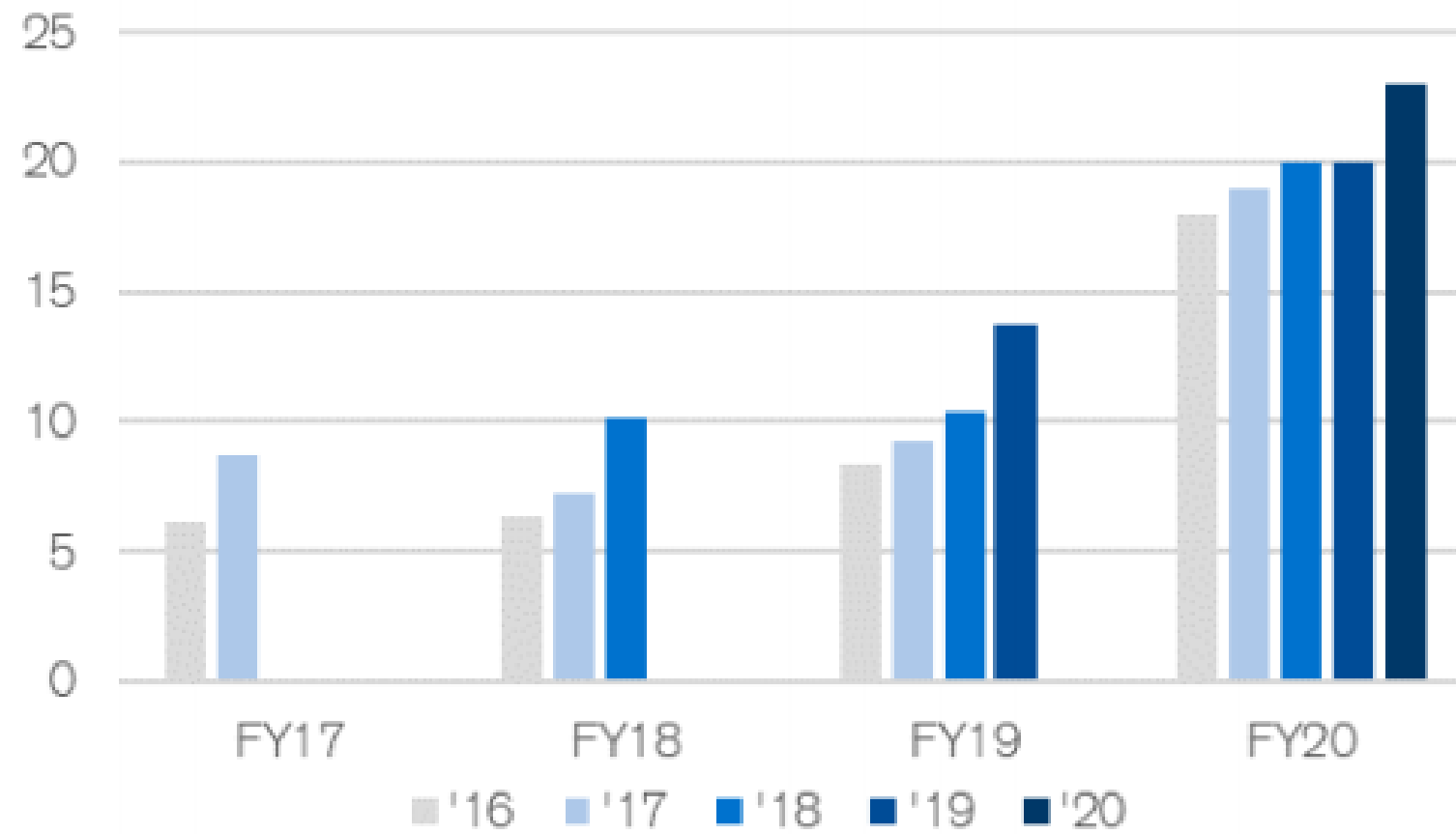


Source: Company data

Customer base has **expanded beyond only the affluent**, leading to dramatically increased addressable market

WHY PELOTON IS SO SUCCESSFUL

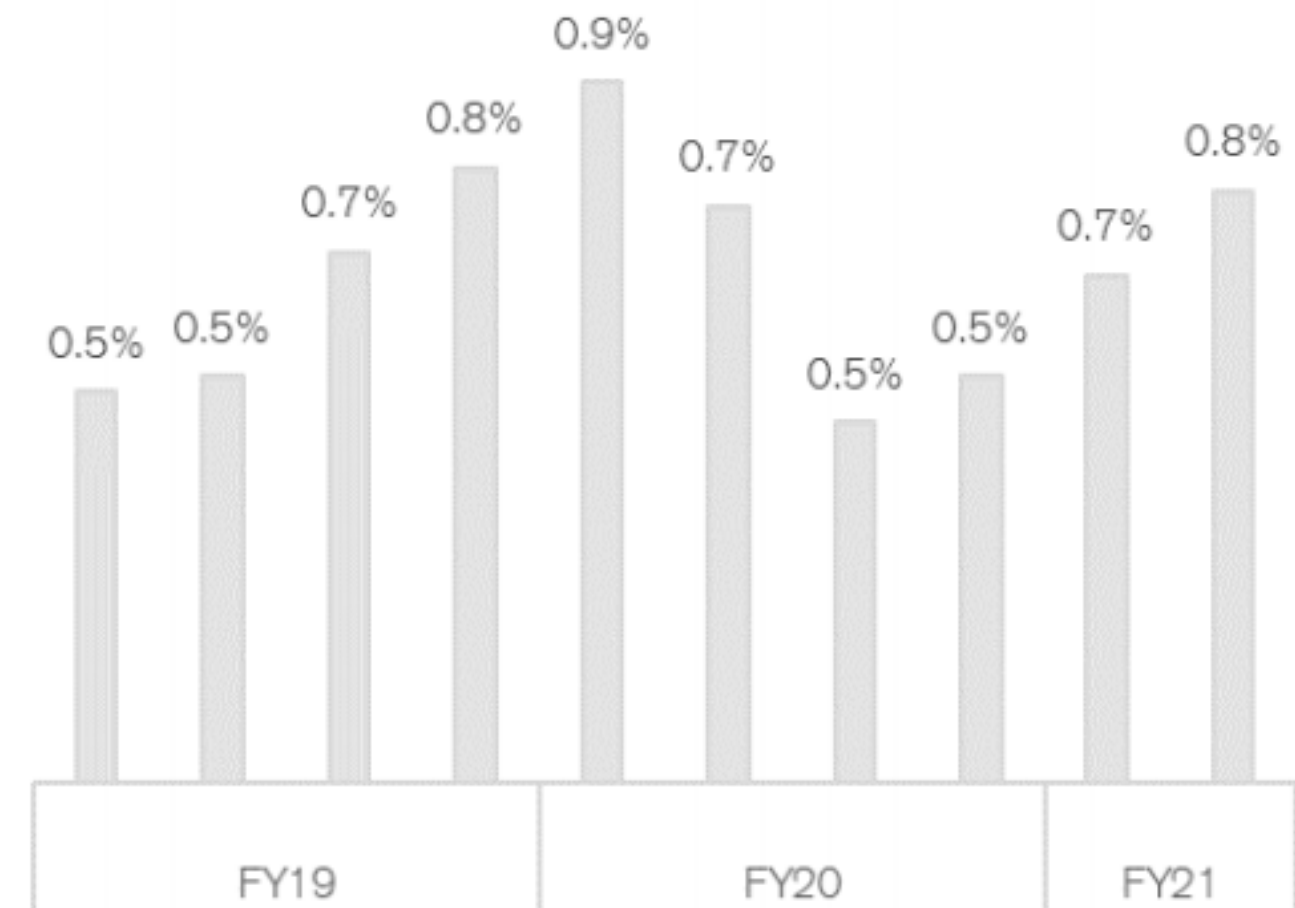
Figure 4: Peloton's Earliest Members Increasingly Engaged; Avg. Connected Fitness Workouts/Month by Vintage



Source: Company data

Customers become **increasingly engaged over time**

Figure 25: Monthly Attrition Less than 1% Indicates Customer Satisfaction (Avg. Net Monthly Connected Fitness Churn)









Source: Company data

Low churn indicates customer satisfaction








EXERCISE TECH STARTUPS

Players of Interest

Company	Description	Latest Valuation	Capital Raised	Notable Investors
 ZWIFT	Provider of an interactive fitness platform that connects users to physical indoor trainers so that cyclists can pedal inside while immersed in any number of virtual landscapes on a screen in front of them, enabling users to join in rides together with friends.	\$2.62B	\$629M	Permira, KKR
 STRAVA	Developer of an application that offers users the ability to record fitness activity, analyze, share and compare data against themselves, friends and pros, enabling users to discover, share and plan workouts together.	\$1.5B	\$182M	Sequoia, TCV, Dragoneer
 TONAL	Developer of a digital fitness platform designed to deliver a smooth weightlifting experience using magnets and electricity, eliminating the need for traditional weights.	\$1.45B	\$527M	Sapphire, L Catterton, Dragoneer
 ECHELON	Developer of a fitness platform that offers a workout routine which consists of various programs such as studio level cycle classes, yoga, home indoor exercise bikes and other core strengthening programs.	~\$1B	\$65M	Goldman Sachs
 TEMPO	Developer of smart at-home fitness platform designed to improve the quality of workout techniques utilizing a 3D vision camera to give real-time reporting of form, stability, posture, balance and other factor points.	\$776M	\$297M	Khosla, Founders Fund, General Catalyst
 FIGHT CAMP	Developer of a wearable motion tracker intended to monitor and view a fighter's punch output in real-time, enabling users to compare their speed, punch count, and intensity compared to other fighters.	\$412M	\$114M	NEA, IVP

EXERCISE TECH STARTUPS

Players of Interest

Company	Description	Latest Valuation	Capital Raised	Notable Investors
 Aaptiv	Developer of an audio-based mobile fitness application that synchronizes the motivational guidance of a trainer with the perfect playlist, as well as offering classes in running, indoor cycling, elliptical and yoga.	\$200M (2018)	\$75M	Insight, Pear, Amazon Alexa Fund, Bose
 ERGATTA	Provider of combined at-home water resistance rowing equipment and an interactive gaming platform designed to deliver a competitive, motivating and entertaining fitness experience.	\$180M	\$35M	Greycroft, Advance Venture Partners
 asana rebel	Developer of a fitness and yoga application that provides access to workouts designed by yoga and fitness experts, enabling users to create their own daily yoga plans in any of six available languages.	\$114M (2018)	\$25M	Greycroft
 hydrow	Provider of at-home computer-guided magnetic resistance rowing equipment supported by on-demand digital courses that simulate real rivers with visuals, audio, and instructor adjustable resistance.	\$110M	\$76M	L Catterton, Alumni Ventures, TriplePoint
 ATHOS	Developer of smart apparel for the health and fitness market that monitors biosignals and distills them into meaningful insights around athletic training load and movement quality using personalized muscle activity data.	\$98M (2015)	\$51M	Social Capital, True Ventures, Lightspeed
 fitbod	Developer of a workout planning application platform that uses machine learning to analyze user's workout data to build a real-time strength-training plan tailored for user's physical capability.	\$90M	\$6M	Pear, Afterwork Ventures
 LITEBOXER	Developer of an interactive boxing platform that uses game dynamics and motivational experiences to deliver enhanced, enabling customers to eliminate the need for a bulky and heavy bag while boxing.	\$81M	\$26M	B. Riley

CASE STUDY: ZWIFT

Company Information

- Founded in 2014
- HQ: Long Beach, CA
- Headcount: 544 LIE (53% YoY growth)

Competitor Landscape

- Other biking tech companies, primarily Peloton
- Other exercise tech companies, like running (Strava) and home gym (Tonal, Mirror)

Overview

- **Interactive stationary biking platform**
- Connects users to physical indoor trainers
- Allow users to see any number of virtual landscapes on a screen in front of them
- Users to join in rides together and compete against each other
- Has in-environment rewards, power-ups, customizations
- Users need a bike, a trainer (what holds the bike in place), and the Zwift app, but Zwift is compatible with many bikes and trainers
- App is \$14.99 per month
- Also sells hardware (one of the trainer models offered is listed at \$1,200)
- Offers similar product for running, but appears that biking is vastly more popular

Investors



Financing Summary

- Series A (11/16): \$27M (\$180M valuation)
- Series B (12/18): \$120M (\$600M valuation)
- Series C (9/20): \$450M (\$1.86B valuation)
- Series C2 (3/21): \$25M (\$2.62B valuation)

Customers

- Consumers
- Over 3 million accounts as of February 2021

Pitchbook, Company Website

CASE STUDY: TONAL

Company Information

- Founded in 2017
- HQ: San Mateo, CA
- Headcount: 379 LIE (97% YoY growth)

Competitor Landscape

- Other home gym tech companies (Tempo, Mirror)
- Other exercise tech companies, like running (Strava) and biking (Peloton, Zwift)
- Traditional gyms and home exercise equipment

Overview

- **Luxury smart home gym**
- Large wall-mounted piece of hardware that costs \$2,995
- \$49 per month subscription as well, required for first 12 months
- If subscription is dropped, almost all product features are restricted
- Sell accessories as add-ons to main product
- Mobile app that pairs with equipment
- Digital weight provides resistance of up to 200 lbs with no physical plates or dumbbells
- Measures reps, sets, range of motion, time under tension, power, and volume
- AI Identifies the ideal weight resistance based on how difficult the current weight is
- Has 17 sensors that analyze & correct form
- 100s of guided programs with trainers, in many areas including strength training, yoga, kickboxing, meditation, mobility, and more

Investors



Financing Summary

- Series A (6/17): \$10M (\$25M valuation)
- Series B (7/18): \$25M (\$75M valuation)
- Series B2 (8/18): \$10M (\$98M valuation)
- Series C (3/19): \$45M (\$185M valuation)
- Series C2 (6/20): \$75M (\$200M valuation)
- Series D (9/20): \$110M
- Series E (3/21): \$250M (\$1.45B valuation)

Customers

- Consumers

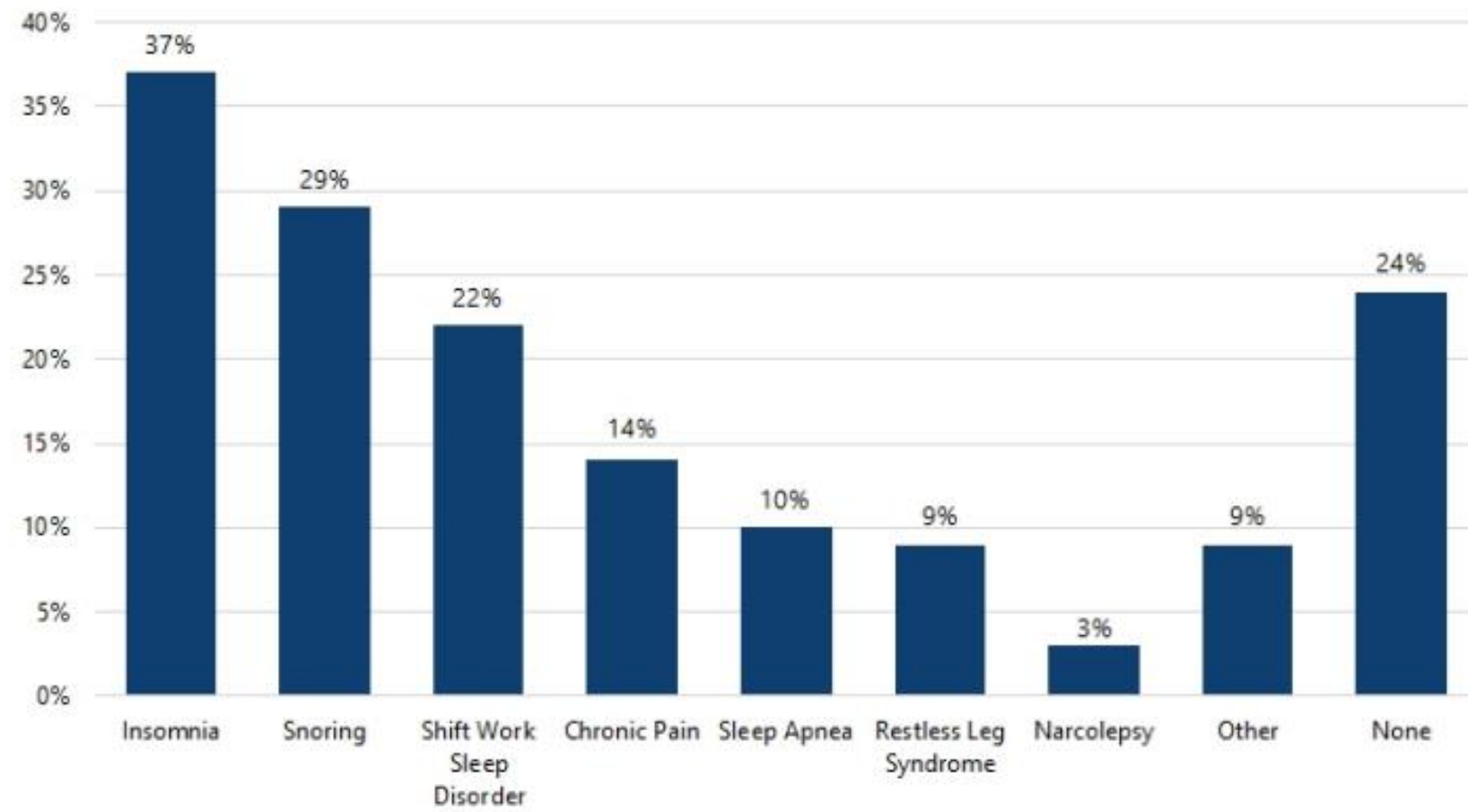
Pitchbook, Company Website

SLEEP TECH

SLEEP TECH MARKET OVERVIEW

Widespread Sleep Issues

Chart 12 - Percentage of Adults with Medical Issues that Affect Their Sleep



Source: Statista, Philips, KJT Group, Jefferies

Massive Market Opportunity

Figure 1: Casper – addressable market size (\$ bn)

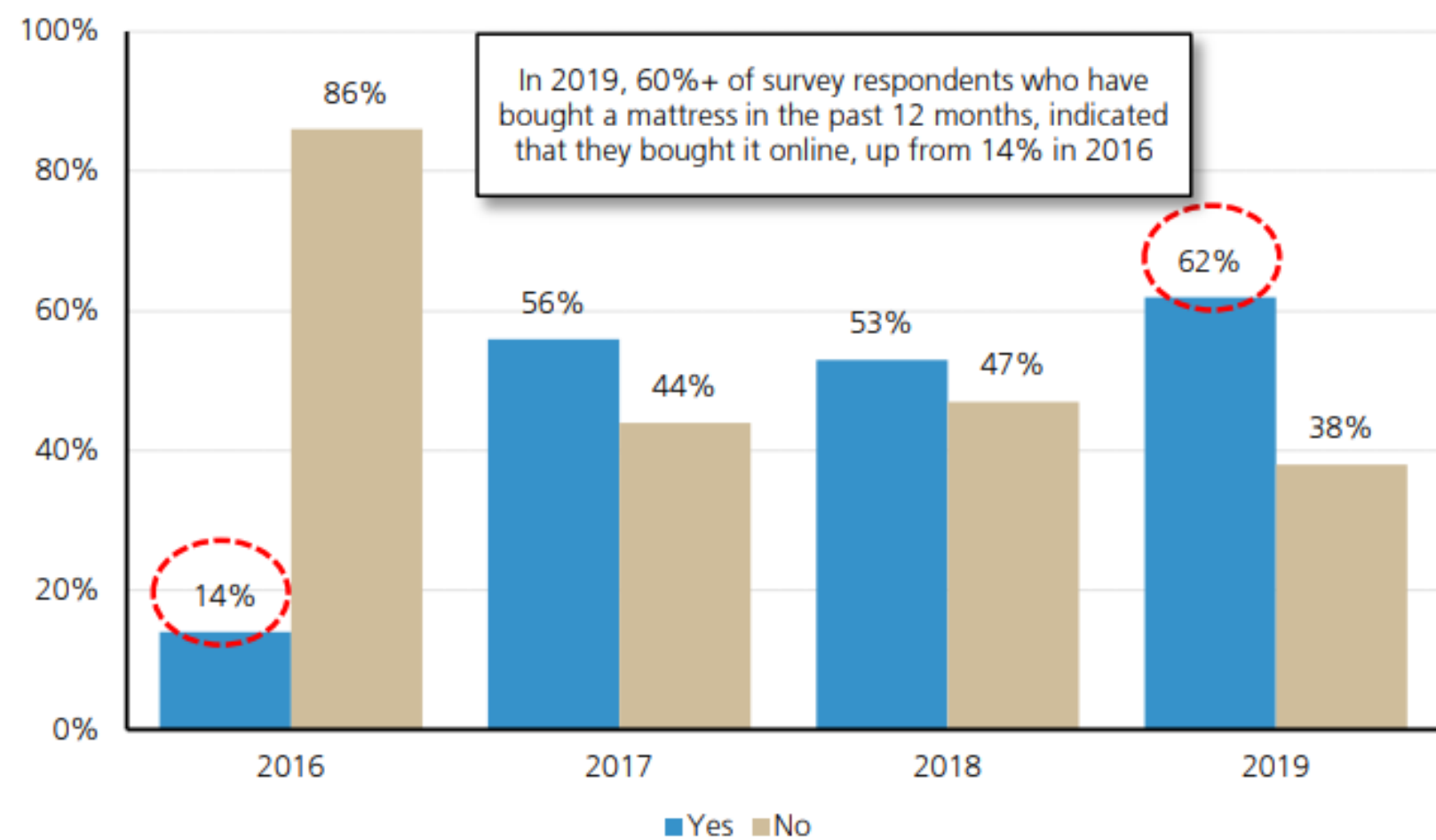


Source: ISPA, Company Reports, UBS Estimates

SHIFT TO ONLINE SALES

Rapid Shift to Ecommerce Mattress Sales...

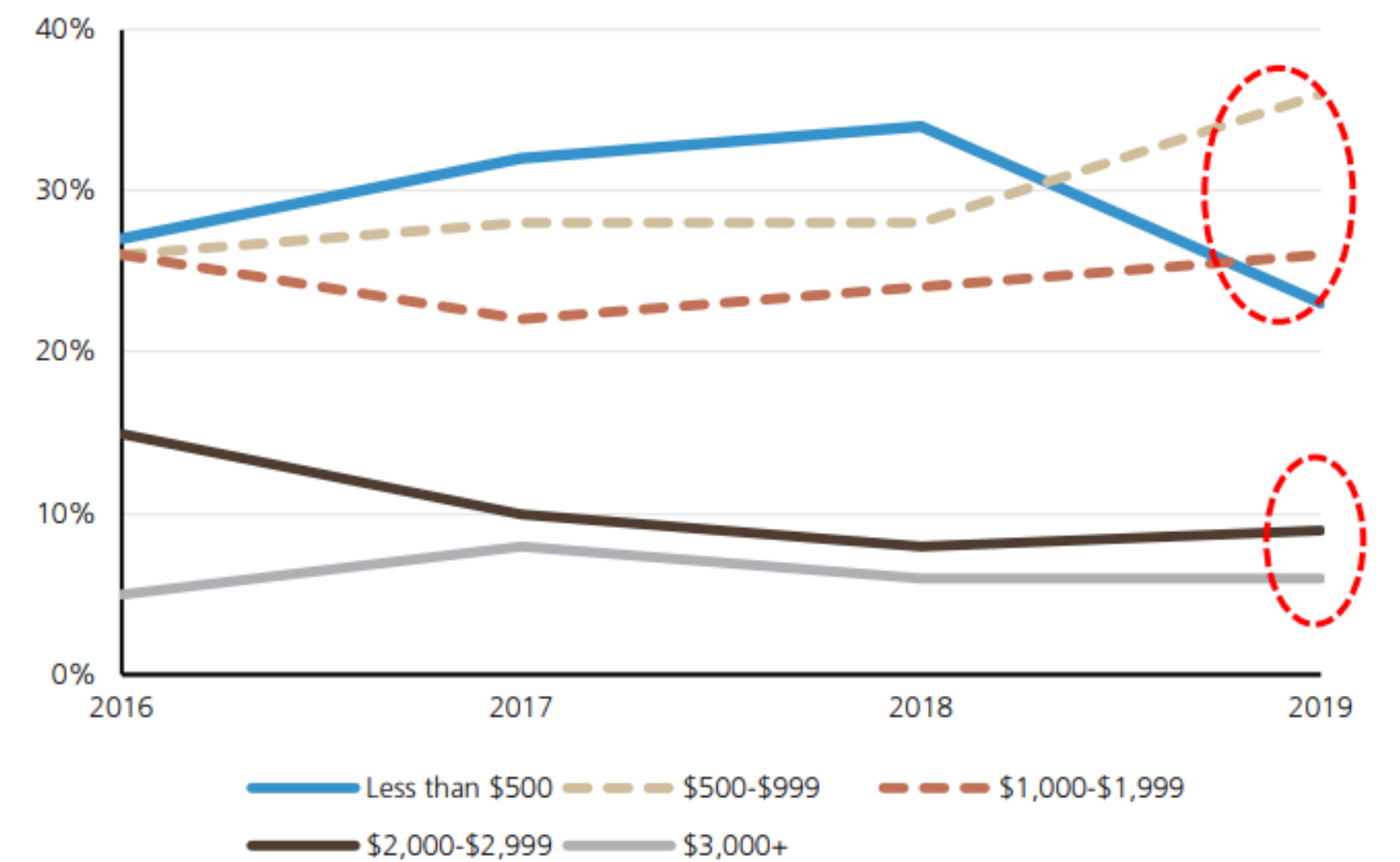
Figure 8: Have you bought a mattress online? (question asked to those who have bought a mattress in the past 12 months)



Source: UBS Evidence Lab

...With A Price Caveat

Figure 9: How much are you willing to spend on buying a mattress online?

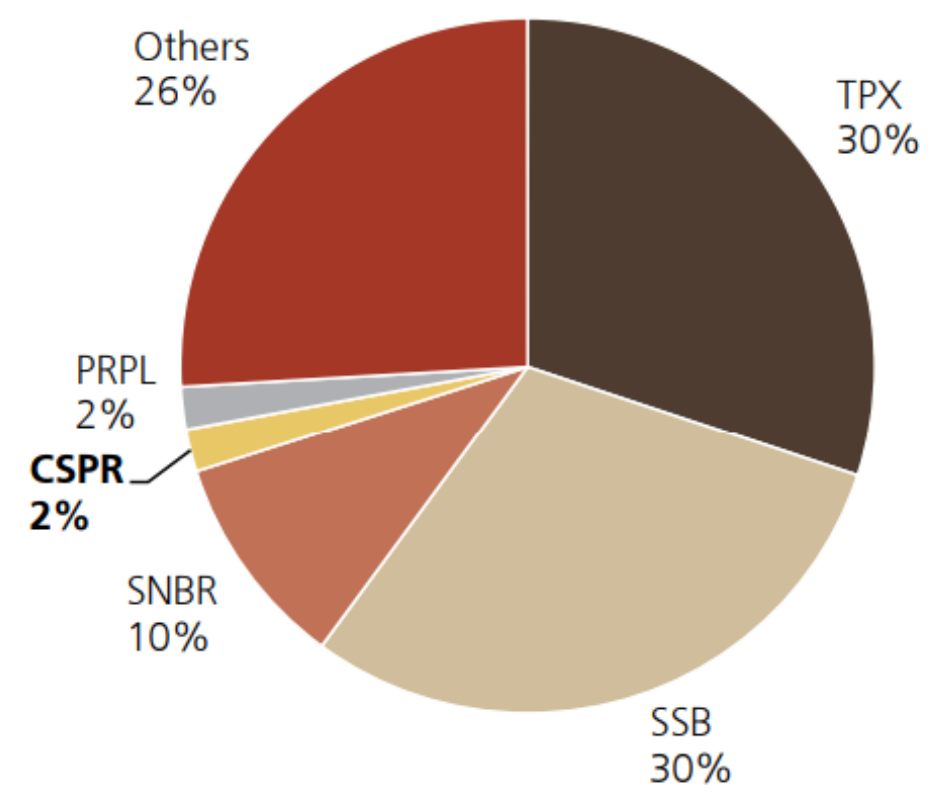


Source: UBS Evidence Lab

CURRENT MARKET PLAYERS

Notable Public Players – Mattresses

Figure 10: US Mattress Market – share breakdown



Source: UBS Estimates, Company Reports, ISPA

- The current “disruptive” mattress companies are Casper and Purple, which are known for selling mattresses through online channels instead of exclusively through physical retail locations
- They have very low market share among mattress companies
- They do not have any additional functionality or data measurement abilities, and do nothing to solve sleep issues
- They can effectively be viewed very similarly to the legacy incumbent mattress companies – they are only differentiated by sales channel

Notable Public Players – Other Products









- There are few public sleep tech companies
- Sleep Cycle is listed in Sweden, and Owlet’s products are exclusively for monitoring and improving the sleep of babies

Takeaway

- The sleep market is massive, but technology has barely penetrated it at all – there is a huge greenfield opportunity for sleep tech companies

SLEEP TECH STARTUPS

Players of Interest

Company	Description	Latest Valuation	Capital Raised	Notable Investors
 8 EIGHT SLEEP	Developer of a smart mattress that leverages innovation, technology and personal biometrics to restore individuals to their peak energy levels each morning, enabling customers to manage and track their sleep.	\$388M	\$161M	Comcast, Khosla, Founders Fund
 dreem	Developer of a sleep tracking headband that automatically analyzes a person's sleep stages in real-time and processes the data with machine learning algorithms, enabling users to fall fast asleep, get deep sleep and wake up refreshed.	\$121M (2018)	\$52M	Johnson & Johnson
 nanit	Developer of artificial intelligence and computer vision-based monitoring devices designed to track baby sleep behavior and patterns, offering sleep insights, behavioral analysis, expert advice and nightly video summaries.	\$120M	\$77M	GV, Vulcan
 Bryte	Developer of a restorative sleep technology platform that uses artificial intelligence and machine learning technology to redesign and continuously optimize sleep experience, using data from the Bryte restorative bed.	\$64M	\$30M	Evolution VC, ARCHina Capital
 Hatch	Developer of sleep-based smart product that combines a smart light, sound machine, sunrise alarm, meditations, and an alarm clock to help humans of all ages and stages to maintain natural, healthy sleep habits.	\$55M	\$29M	True Ventures, Next Play
 chilisleep	Developer of IoT-based sleep systems comprised of a hydro-powered mattress pad, thermal regulating unit, a remote, and an app to monitor sleep schedules, enabling users to monitor and optimize their sleep.	N/A	\$38M	KKR

CASE STUDY: EIGHT SLEEP

Company Information

- Founded in 2014
- HQ: New York, NY
- Headcount: 50 LIE (4% YoY decrease)

Competitor Landscape

- Wearables that offer sleep tracking (Oura, Whoop, Fitbit)
- Other smart mattress companies like Bryte
- Other mattress companies (Casper, Sleep Number)

Overview

- **Smart mattress**
- Also sells accessories like mattress covers, pillows, bed frame
- Queen size bed is \$2,995
- Can also just buy mattress cover for \$1,795 if you don't need a new mattress
- Planning to add subscription component at some point in future
- Actively regulates temperature to avoid getting too hot while sleeping
- Tracks respiratory rate, resting heart rate, and heart rate variability, as well as sleep stages, sleep time, and toss and turns
- Gently wakes up sleepers with vibrations
- Can separately track two sleepers
- Mattress is extremely comfortable
- Mobile app syncs data and provides insights
- CEO thinks can increase percentage of deep/REM sleep, decreasing sleep required
- CEO thinks can detect and prevent diseases

Investors



Financing Summary

- Series A (2/17): \$13M (\$26M valuation)
- Series B (3/18): \$33M (\$45M valuation)
- Series C (11/19): \$41M (\$101M valuation)
- Series C2 (6/21): \$88M (\$388M valuation)

Customers

- Consumers

Pitchbook, Company Website

ALL-DAY ACTIVITY TRACKING

ALL-DAY ACTIVITY TRACKING MARKET OVERVIEW

Notable Public Players



- Apple dominates the global smartwatch market, with 33.5% market share
- Fitbit only has 4.2% market share, with Garmin and Amazon controlling even less
- Apple Watch heart rate monitoring is only 34% accurate in detecting atrial fibrillation, and is fairly inaccurate in general
- Apple dominates watches because they integrate with the rest of the Apple ecosystem – despite its hardware, not because of it

Smart Ring Activity

- In April 2020, smart ring company Motiv was bought by digital authentication startup Proxy. In 2018, Motiv added biometric security features to the ring, including two factor authentication. Motiv rings are no longer sold to consumers, and proxy intends to use the biometric security features for authentication purposes, such as keycards, IDs, and logging into digital accounts
- In December 2020, Fitbit filed a patent for a smart ring with superior blood oxygen measuring technology compared to current wearables, among other biometric features, but no such product has yet been announced

Takeaways

- Apple has won the smart watch vertical, but the Apple Watch's health data accuracy is far below medical grade
- More health-focused, non-watch wearables will likely compete on accuracy and functionality, which comes from superior hardware
- For rings and non-watch wrist straps, there are no large incumbents

<https://www.counterpointresearch.com/global-smartwatch-shipments-q1-2021>
<https://www.wearable.com/fitbit/fitbit-smart-ring-patent-8486>

ALL-DAY ACTIVITY TRACKING STARTUPS

Players of Interest

Company	Description	Latest Valuation	Capital Raised	Notable Investors
WHOOP®	Developer of a wearable performance optimization device intended to provide personalized insights on strain and sleep to improve overall fitness to balance training, reduce injuries, and predict performance.	\$1.2B	\$207M	Two Sigma, SoftBank, IVP
OURA	Developer of a wellness wearable ring designed to track and improve the quality of sleep and performance, enabling users to improve their sleep, overall health, and align to their natural circadian rhythm.	\$800M	\$265M	BOLD, Alumni Ventures, Square, Tribe

CASE STUDY: WHOOP

Company Information

- Founded in 2012
- HQ: Boston, MA
- Headcount: 509 LIE (76% YoY growth)

Customers

- Consumers, with some corporate partnerships
- Sports organizations (NFLPA, PGA, Crossfit, Duke Basketball, Penn State Football)
- Many prominent athletes (Mahomes, Curry)
- US Army

Competitor Landscape

- Other wearables that offer activity tracking (Fitbit, Apple Watch, Oura)

Investors



Financing Summary

- Series A (6/14): \$6M (\$24M valuation)
- Series B (12/15): \$13M (\$48M valuation)
- Series C (3/18): \$25M (\$125M valuation)
- Series D (11/19): \$37M (\$237M valuation)
- Series E (10/20): \$100M (\$1.2B valuation)

Overview

- **Wearable strap that collects data 24/7**
- Paired with mobile app, also sell accessories
- No screen – very clear that it is not a watch and does not want to compete with watches
- Strap is free, \$30 per month subscription
- Originally was one time purchase, switched to subscription in 2018
- Tracks sleep, recovery, and strain data
- Sleep data tracks quality (disturbances, respiratory rate, latency), quantity (sleep debt, naps, time in bed), and sleep stages
- Recovery tracks heart rate variability, RHR, and sleep to provide a score
- Strain is measured 0-21, with recommendations given based on score
- Reduces injuries, improves sleep and heart rate data
- The difference between people who use Whoop more than 1 minute a day and people who use Whoop more than 18 hours a day is around 3% -- people who use it do not take it off

Pitchbook, Company Website

CASE STUDY: OURA

Company Information

- Founded in 2013
- HQ: Oulu, Finland
- Headcount: 376 LIE (88% YoY growth)

Competitor Landscape

- Other wearables that offer sleep tracking (Whoop, Fitbit)
- Sleep equipment companies that provide sleep insights (Eight Sleep)

Overview

- **Primarily sleep tracking ring that also tracks exercise during the day**
- Ring costs \$399, no subscription component
- Claims to have most accurate sleep data of current wearables – uses superior sensors
- Pairs with mobile app
- Provides scores in three areas (sleep, readiness, and activity), but is primarily known for sleep and readiness
- Sleep data measures resting heart rate, heart rate variability, respiratory rate, body temperature, light vs. deep vs. REM sleep, nighttime movement, sleep timing, and sleep quality
- Sleep score indicates sleep quality, readiness score indicates recovery level

Investors



Financing Summary

- Series A (11/16): \$4M (\$16M valuation)
- Series A2 (7/18): \$5M (\$25M valuation)
- Series A3 (12/18): \$4M (\$35M valuation)
- Series B (3/20): \$129M (\$681M valuation)
- Series C (5/21): \$100M (\$800M valuation)

Customers

- Consumers
- Sports organizations (NBA, UFC, Nascar)
- US Army, US Navy
- Employers (GE, Las Vegas Sands)

Pitchbook, Company Website

NUTRITION TECH

NUTRITION TECH MARKET OVERVIEW

Notable Incumbents



weightwatchers
reimagined



Nutrisystem



myfitnesspal

- There are many legacy incumbents, and some are attempting to incorporate technology in some way through an app and/or personalized recommendations
- Most of these systems have negative brand reputations for encouraging or worsening eating disorders (Weight Watchers, Jenny Craig) or for being MLM companies (Medifast)
- These systems have also been criticized for not leading to long-term weight loss and having customers regain weight soon after losing it
- These incumbents have been losing ground for over two years to next-generation nutrition companies like Noom





Takeaways

- The nutrition market incumbents are vulnerable and major disruption is possible in the space
- Noom is already in the lead, but other platforms that use technology to facilitate lasting weight loss with considerations for psychology and mental health have an opportunity

<https://www.webmd.com/diet/a-z/noom-diet>

<https://www.marketwatch.com/story/market-share-stock-price-for-the-former-weight-watchers-take-a-beating-from-wellness-startup-noom-2019-01-11>

NUTRITION TECH STARTUPS

Players of Interest				
Company	Description	Latest Valuation	Capital Raised	Notable Investors
 noom	Developer of mobile health coaching software that combines nutrition and exercise coaching and artificial intelligence to deliver behavioral change programs, enabling users to prevent and manage chronic conditions.	\$4.24B	\$669M	Kleiner Perkins, Sequoia, Silver Lake
 VIO ME	Operator of a healthcare platform that uses at home clinical-grade tests and decodes precise health insights and biomarkers, providing customers with personalized nutrition recommendations and precision supplements.	\$483M	\$107M	Khosla, BOLD
 ZOE	Provider of medical testing services that involve testing for the gut, blood fat, and blood sugar responses of patients with at-home test kits and then delivering personalized insights to develop a four-week dietary plan.	\$157M	\$52M	Mosaic Ventures, Ahren Innovation Capital
 LEVELS	Developer of a wellness device that provides real-time blood glucose data, enabling clients to improve metabolic health by optimizing diet and routines for personal goals.	\$50M	\$12M	Andreessen Horowitz, Alumni Ventures

CASE STUDY: NOOM

Company Information

- Founded in 2006
- HQ: New York, NY
- Headcount: 2,008 LIE (25% YoY growth)

Competitor Landscape

- Legacy weight loss platforms (Weight Watchers, Nutrisystem, Jenny Craig)
- Dietitians
- Calorie tracking or other unassisted diets

Overview

- **Nutrition coaching app**
- \$59 per month subscription
- Focuses on habit and behavior change (and mental health) rather than restrictive dieting
- In one study, 78% of people lost weight while using Noom, and 23% lost more than 10% of their body weight
- Users enter data about their demographics, goals, and lifestyle and are matched with a health coach who is available during business hours via chat service
- Users track food and portion sizes by searching database of 150,000 plus foods
- Also track water intake, exercise, health metrics (heart rate, blood pressure)
- Rather than having some foods that are off limits, foods are grouped into green, yellow, and red based on caloric density

Investors

SEQUOIA

SILVERLAKE

SAMSUNG

Translink
CAPITAL

novo
holdings

Financing Summary

- Series A (1/14): \$7M (\$20M valuation)
- Series B (4/15): \$16M (\$86M valuation)
- Series C (12/16): \$29M (\$145M valuation)
- Series D (2/18): \$16M (\$75M valuation)
- Series E (5/19): \$55M (\$340M valuation)
- Series F (5/21): \$540M (\$4.24B valuation)
- IPO (likely 2022)

Customers

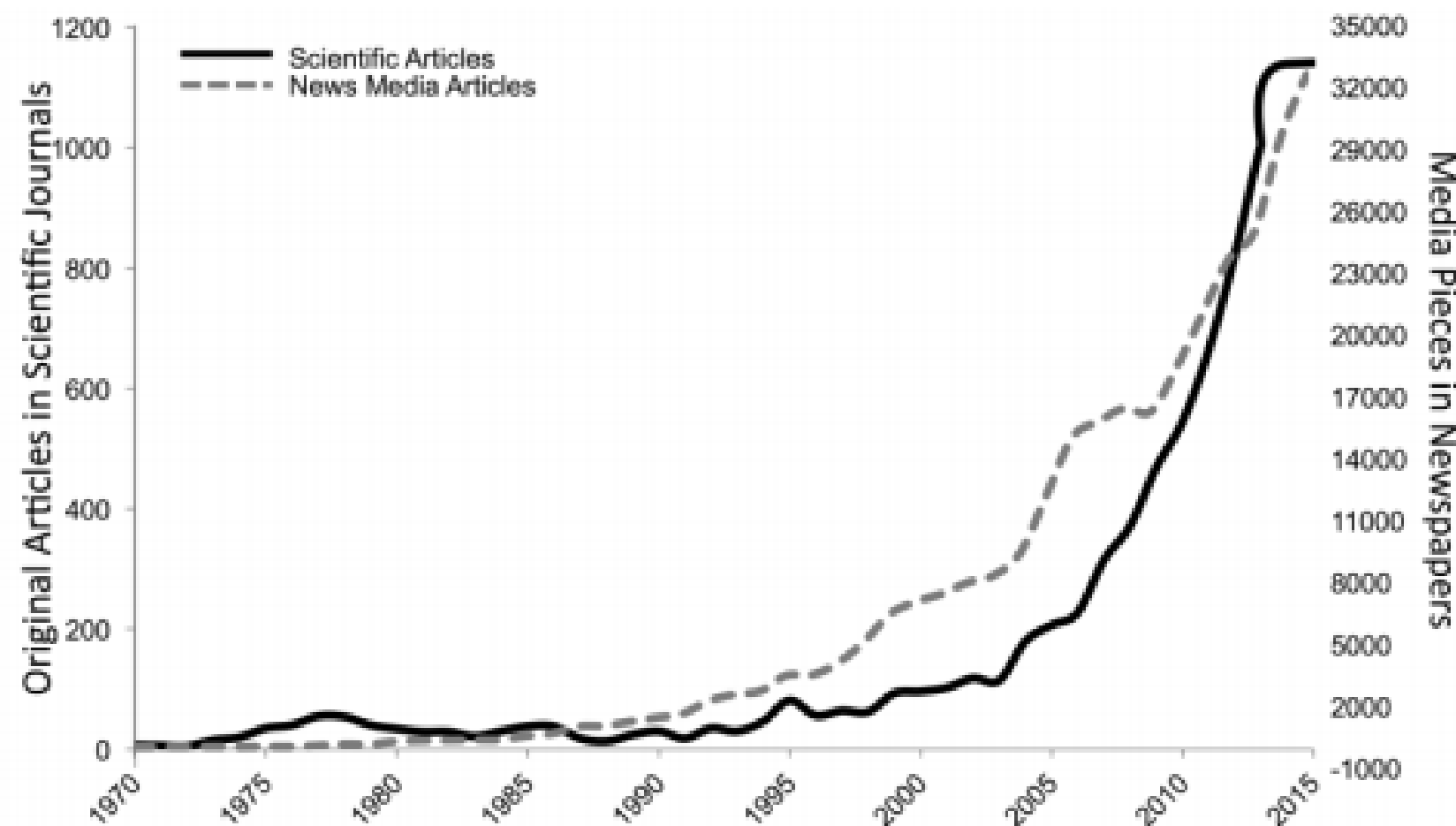
- Consumers
- Employers
- Medical professionals who suggest Noom to patients
- More than 45 million users globally

Pitchbook, Company Website

MINDFULNESS TECH

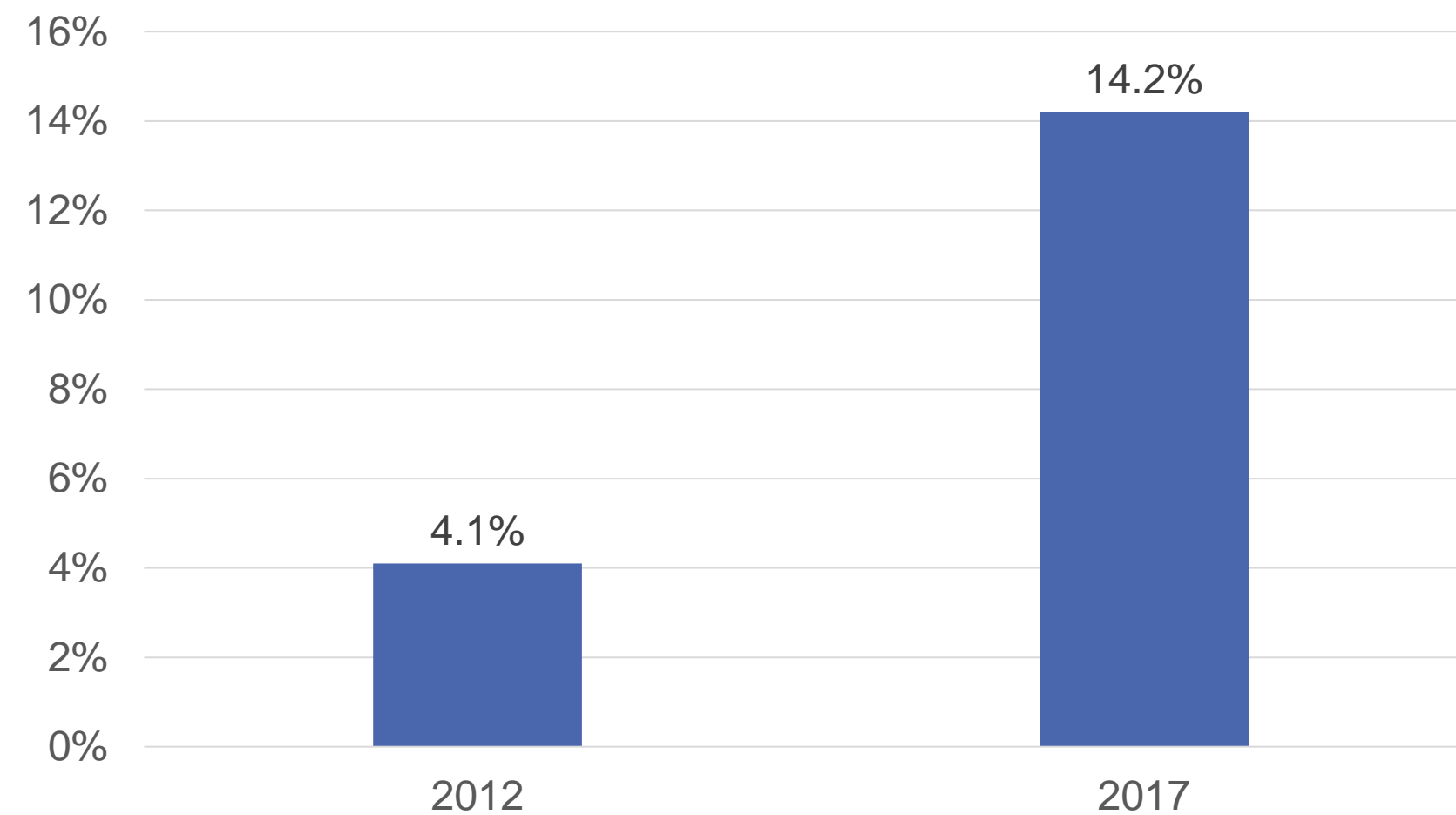
MINDFULNESS TECH MARKET OVERVIEW

Increased Academic and Media Attention



- Around 40 million US adults are affected by anxiety disorders every year, which is 18.1% of the population
- Only 36.9% of those suffering receive formal treatment

Percent of US Adults Using Meditation



- Historically, meditation has been inaccessible to the average person – it could only be learned in person from an expert
- Adoption is growing extremely quickly now that apps and other services have made it easy for anyone to practice meditation

Takeaway

- Mindfulness has become a much more prominent concern in recent years, with rapidly increasing in popularity – with no incumbents, meditation apps only have each other to compete with

https://www.brown.edu/research/labs/britton/sites/britton-lab/files/docs/VanDam%202017_Mind_the_Hype.pdf
<https://www.nccih.nih.gov/research/statistics/nhis/2017/meditation-use-us-adults>

MINDFULNESS TECH STARTUPS

Players of Interest				
Company	Description	Latest Valuation	Capital Raised	Notable Investors
Calm	Developer of a sleep, meditation, and relaxation application designed to reduce anxiety. The company's application provides original audio contents, stories, and programs.	\$2.00B	\$191M	Insight, TPG, Lightspeed, Norwest, Pegasus
happify health	Developer of software-enabled healthcare platform that assesses users' happiness levels and offers programs that push users toward healthier mindsets to address stress, depression, anxiety and social isolation.	\$435M	\$119M	Deerfield Management, TT Capital
headspace	Developer of a digital health application that provides mindfulness and breathing techniques training through guided meditation and chats to help users take care of their mental health and improve quality of sleep.	\$317M (2017)	\$216M	Spectrum Equity, Deerfield, Next Play, Pegasus
Insight Timer	Developer of a mobile meditation platform that offers users to join the yoga community and connect with experienced teachers to learn and practice meditation.	\$127M	\$33M	Evolve Ventures, Altos Ventures

CASE STUDY: CALM

Company Information

- Founded in 2012
- HQ: San Francisco, CA
- Headcount: 370 LIE (73% YoY growth)

Competitor Landscape

- Other meditation apps (Headspace, Insight Timer)
- Unguided meditation

Overview

- **Meditation app**
- \$69.99 per year subscription
- Offers meditation, relaxing music, movement and stretching exercises, audio programs, and relaxing nature scenes
- In survey of subscribers that used it 5+ times per week, 90% reported less anxiety, 92% reported higher sleep quality, 73% reported improved mental health
- Over 100 million downloads and over 1.5 million 5-star reviews
- Some of the courses are offered and/or narrated by celebrities or athletes (Matthew McConaughey, LeBron)

Investors



Financing Summary

- Series A (6/18): \$27M (\$260M valuation)
- Series B (1/20): \$88M (\$888M valuation)
- Series C (12/20): \$75M (\$2.00B valuation)

Customers

- Consumers
- Employers
- Over 4 million monthly subscribers

Pitchbook, Company Website

TAKEAWAYS

TAKEAWAYS – KEYS TO SUCCESS

Exercise Tech

All about the social component and competition, content, and user experience (Peloton, Strava, Zwift)

- Exercise data is easier to track accurately, and slight discrepancies don't matter
- The hardware is not as complicated and is more commoditized in a sense – stationary bikes are not new technology
- Because hardware is similar, the software content and user experience is more important
- Since many have a social component, there are big network effects here because people want to compete with those they know
- Competitive moats are content and established brand/user base, including active users, Instagram followers, and online reviews
- Some exceptions – Tonal and Fight Camp are more hardware dominant, in which case hardware functionality is the moat

- Not winner take all across verticals (someone might buy a Peloton for biking and a Tonal for lifting and use Strava for running)
- Likely winner take all within verticals without meaningful differentiation (someone probably would not buy a Tonal and a Mirror)

Sleep Tech and All-Day Activity Tracking

All about hardware accuracy and high-profile endorsements that prove the hardware is the best (Whoop, Oura, Eight Sleep)

- Sleep data is harder to track accurately, precision is important to analysis, and the hardware is more complicated
- Since it includes sleep, all-day activity tracking also falls into this category
- High profile endorsements from athletes or experts are incredibly beneficial because they prove that the hardware is the most accurate – if the product is good enough for LeBron James or PGA tour golfers to perform at optimal performance, then it is good enough for the average consumer
- Competitive moat is superior hardware, or at least consumer perception of superior hardware

- For All-Day activity tracking, Apple has won the watch competition, but there is opportunity for non-watch wearables

TAKEAWAYS – KEYS TO SUCCESS

Nutrition and Mental Health Tech

All about current user results and testimonials, then about results once customer is acquired (Noom, Calm, Headspace)

- The tangible benefit of the products are impossible to know until it is purchased
- Surveys of current users and recommendations from friends, family, and trusted public figures can motivate people to try the product
- No hardware component, so differences between competitors are more subjective and there are more viable alternatives – there are tons of products that promise weight loss or a decrease in anxiety/depression, all with fairly similar marketing pitches
- Competitive moat is first consumer perception, usually through positive reviews and results from other users, and then after the customer is acquired, the results are key

All Subverticals

Crucial to expand beyond just the very affluent if you want to access the whole TAM

- The strength of the value prop determines the TAM – the stronger the value prop, the less wealthy the average customer can be
- Do not necessarily need to access the whole TAM to be successful if average spend per user is very high (Eight Sleep)

Crucial to have increasing engagement over time after initial purchase to prove product/market fit

- This is true with hardware dominant products (Whoop) or social dominant products (Peloton)

Hardware purchase + monthly/yearly subscription is good pricing model, but pure subscription can be good as well

- If churn is very low and NDR is high because of upsell/cross sell, then pure subscription is fine because don't need to get all of CAC back on hardware purchase at beginning if the subscription LTV is high (Whoop)
- It can actually be useful to make the hardware free because it lowers CAC dramatically
- This also depends on the cost to make the hardware compared to the monthly subscription price – need to see how long CAC payback is and what LTV/CAC is with both models and make best choice given specific numbers

RECOMMENDATIONS

1. Whoop

- Has the best hardware in all-day activity tracking, a hardware dominant space
- Several extremely high-profile endorsements contribute to public perception that it is the gold standard
- Innovative pricing model incentivizes users to try it (not just the affluent), and retention is extremely high (high LTV/CAC)
- Wrist strap does not try to be a watch (like Apple is) and is more comfortable and less bulky during the day than a ring (like Oura is)

2. Eight Sleep

- Has the best hardware in sleep tech, a hardware dominant space
- Clear market leader, no meaningful competition besides Bryte, which has worse tech and is twice the cost
- Massive TAM with no incumbents
- Risk: expensive price of mattress could restrict TAM, and a subscription component has not yet been successfully implemented

3. Calm

- Clear market leader in sector with incredibly strong tailwinds
- Excellent surveyed results of current users, established base of positive reviews and celebrity endorsements in mental health tech, a public perception dominant space
- Meditation penetration is still low, so there is ample room to grow

RECOMMENDATIONS

4. Strava

- Has the best social reach in outdoor running/cycling tech, a social dominant space
- Strong network effects since user base is so large and engaged
- Most established brand in exercise tech behind Peloton (1M Instagram followers vs. 1.6M for Peloton and 300k for Zwift)
- No meaningful direct competition (Peloton is somewhat complementary, Tonal/Mirror/Tempo are entirely complementary)

5. Zwift

- Has the best social reach and hardware for competitive cycling tech, a space in which both aspects are important
- Best endorsements in cycling space – Tour de France winners use it
- Does not directly compete with Peloton, offers superior workout variety and data collection for more serious cyclists
- Risk: caters more to serious cyclists than to casual users (who tend to opt for Peloton), which restricts addressable market

Other Interesting Players

- Tonal
- Headspace

