

Changing the dietary supplement category:

Insights to Rebalancing Successful Businesses



Taking healthcare personally.

June 25, 2020

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Presentation Contents

- I. Nutrition Industry Market Data
- II. Supplement Industry Market Data
- III. Supplement Industry Trends & Insights
- IV. COVID-19 Implications and Beyond
- V. Conclusions and Q&A

I. Nutrition Industry Market Data Update



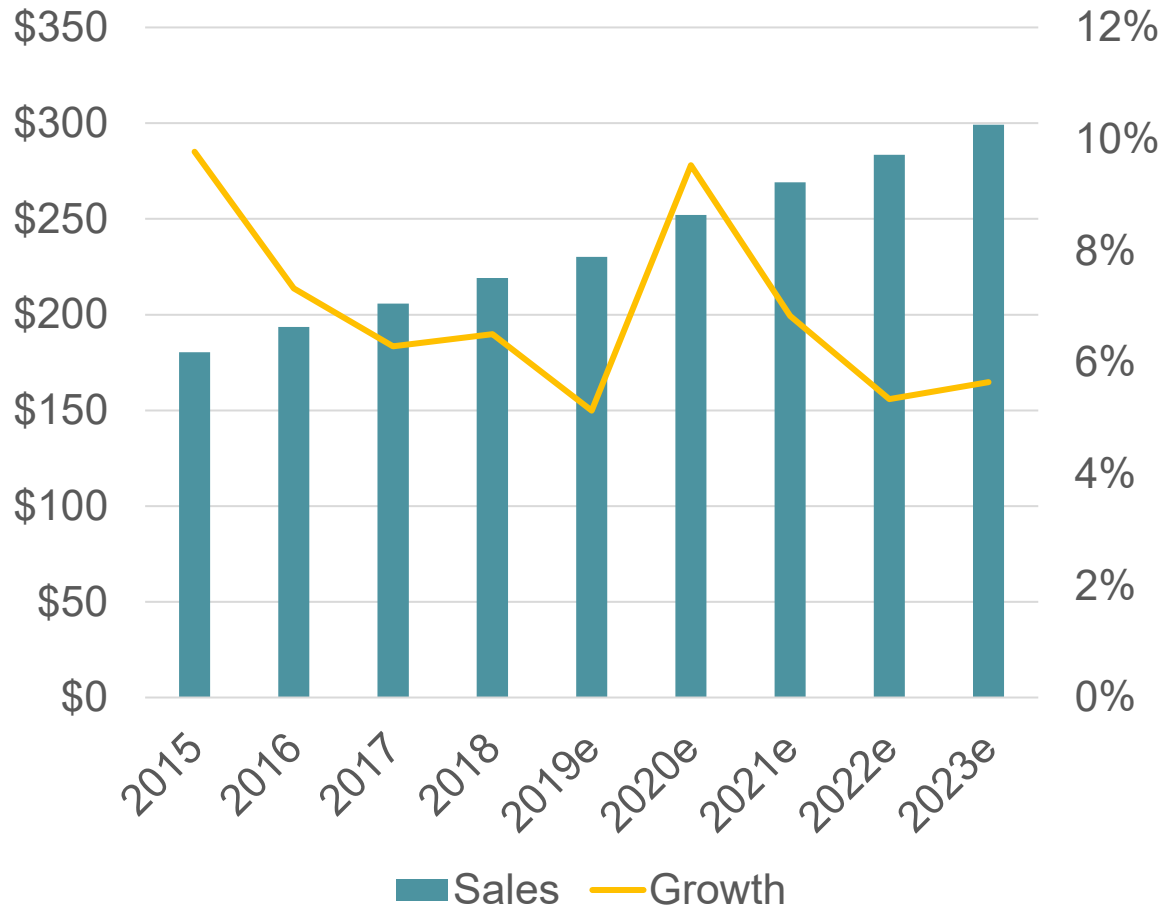
Research Methodology



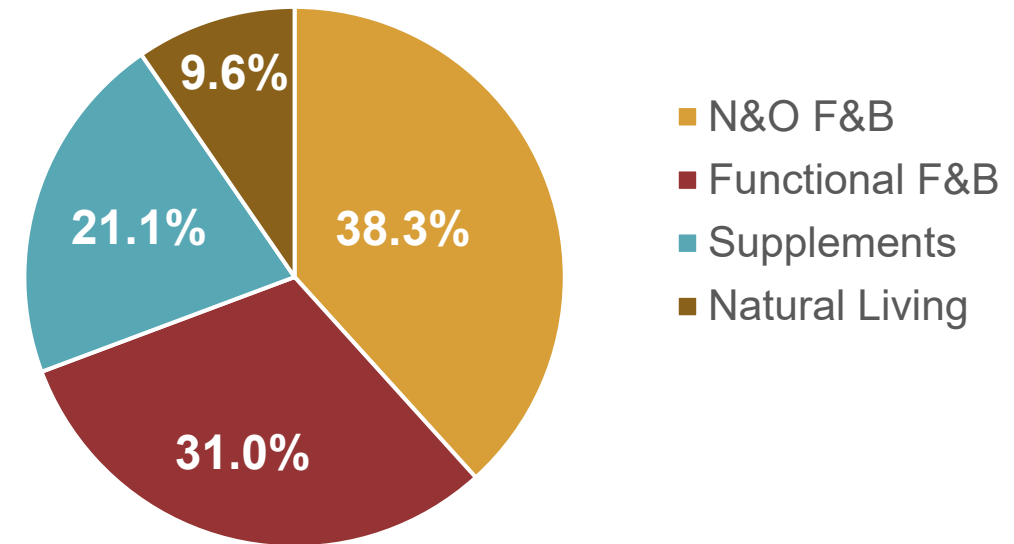
- U.S. nutrition industry fragmented and includes many private companies making it challenging to size
- We believe we have the most comprehensive methodology—but it's not perfect

Nutrition industry on track to hit \$300B in 2023

U.S. Natural & Organic (N&O) Products Industry grew est. 5.1% to \$230B in 2019



\$230B N&O Product Sales by Product Category, 2019



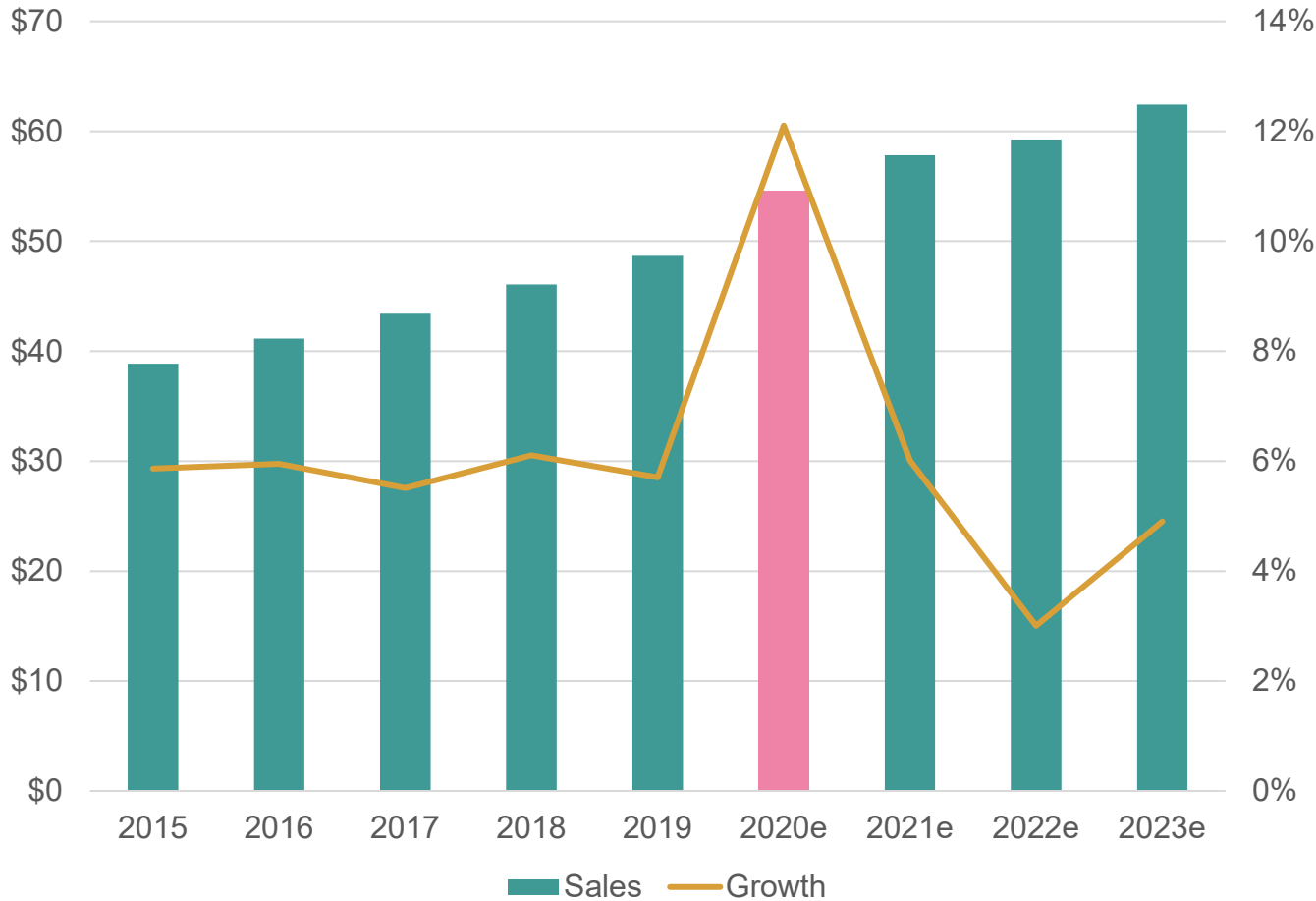
- Industry growth dynamics continue to be strong due to macro trends and consumer interest
- In 2020, health-related business will thrive in a health crisis

II. Supplement Industry Market Data Update

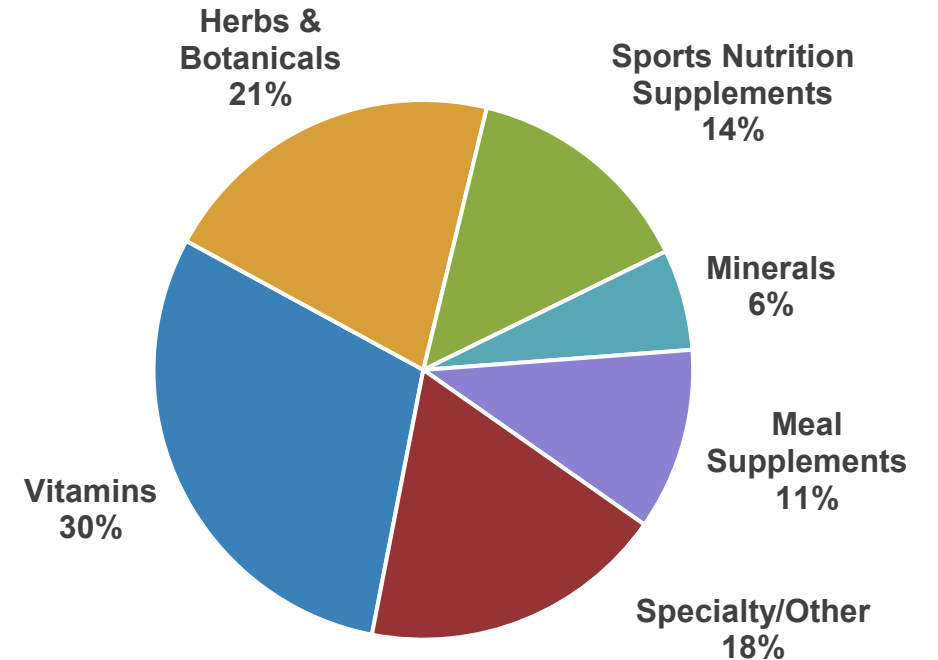


U.S. Supplement Industry Sales & Growth

U.S. supplement sales grew 5.7% to \$48.7B in 2019, and est. to grow 12.1% to \$54.5B in 2020



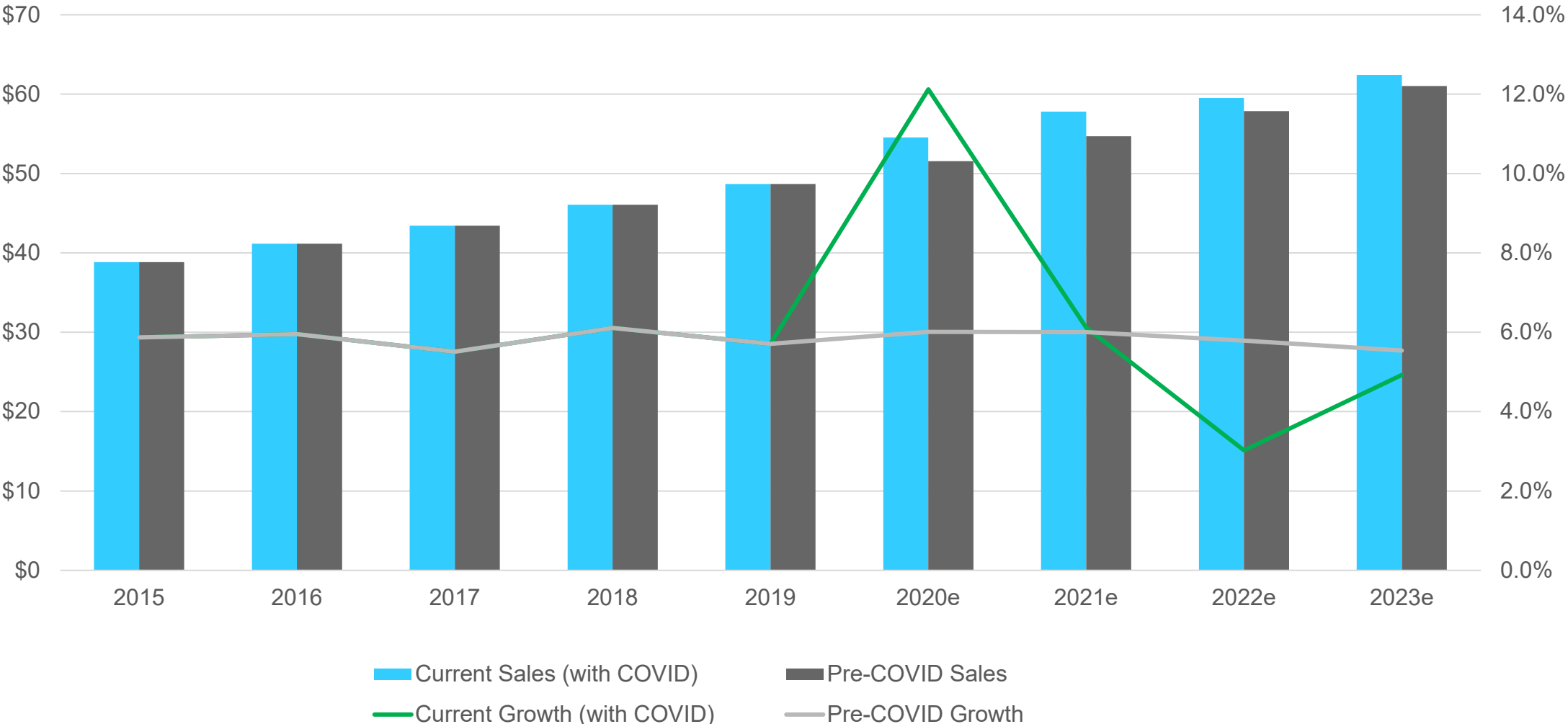
Supplement Sales by Product Category, 2020e



➤ Overall industry growth of 12.1% might look conservative, but that is remarkably higher than any of the best years NBJ has ever tracked (7.5% in 2013)

Sales scenarios after 2020 for the supplement industry

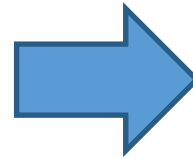
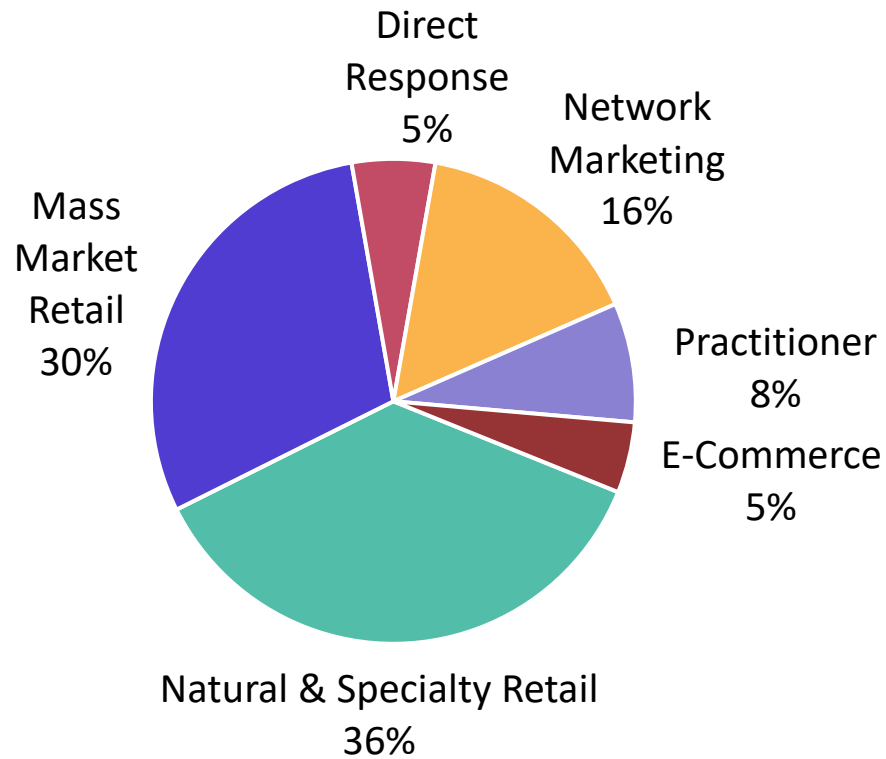
Growth potential for 2020 could be highest in decade, as immunity supplements soar. COVID-19 pandemic looks to be doubling supplement sales growth in 2020, changing the entire forecast.



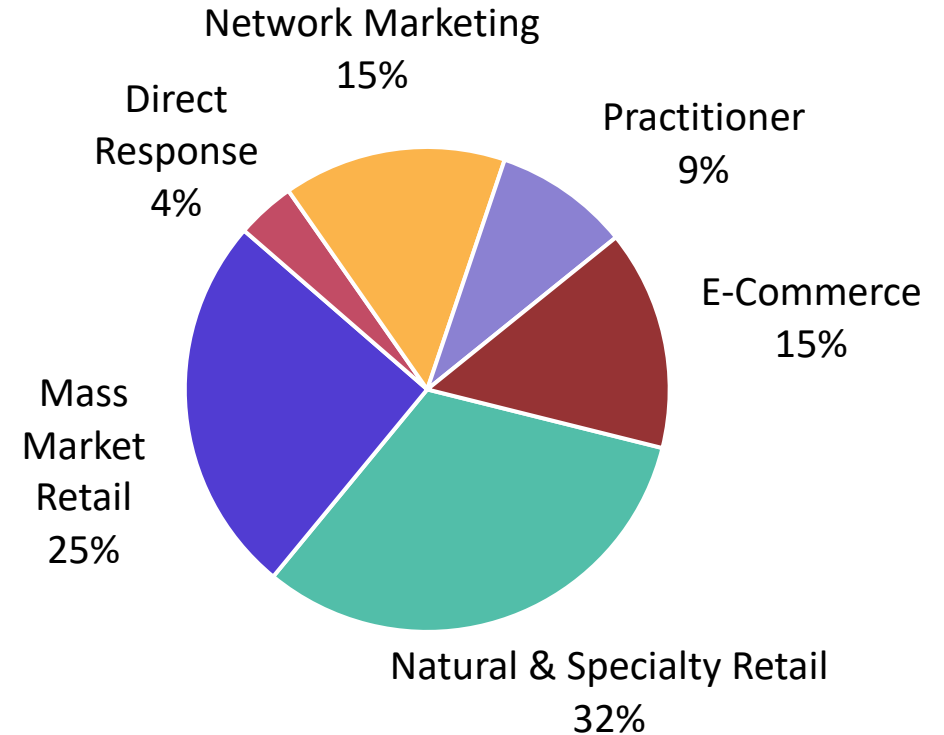
U.S. Supplement Sales by Channel

The internet has continued to take share from other segments of the market, a trend that is accelerating especially as a result of COVID-19. E-commerce est. growth in 2020 is **61.4%**, compared to the last 3-year CAGR of 21.5%

\$28.2B in 2010

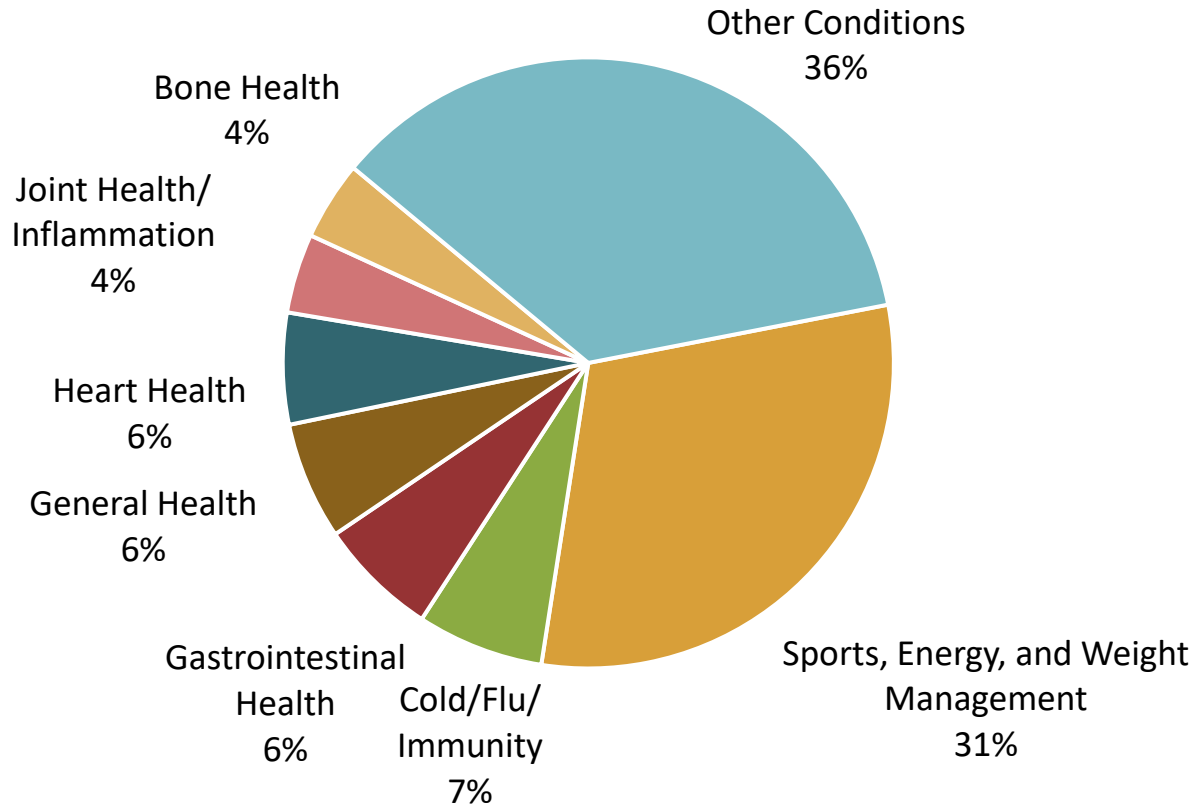


\$54.5B in 2020e



U.S. Supplement Sales by Top Conditions in 2019

Consumers are continuing look to more specific benefits when purchasing supplements



- The top 22 conditions represent \$46.0 billion in sales, roughly 94% of the total supplement market
- NBJ has traditionally considered “**Sports, Energy and Weight Management**” as a combined condition category, which continues to be the most popular condition specific supplement category, accounting for 31% of industry sales
- Immunity continues to gain market share as major world health crises and bad cold/flu seasons raise awareness of and interest in natural solutions around immunity protection.

III. Supplement Industry Trends & Insights

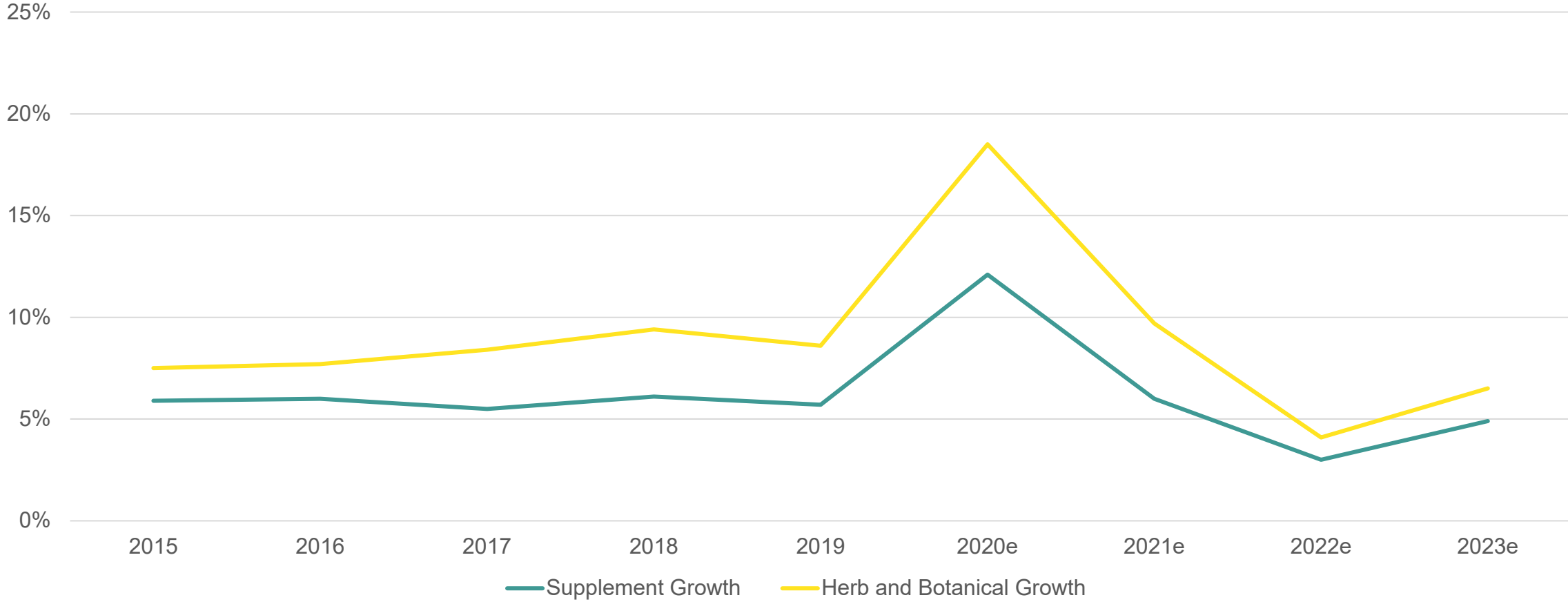


Top 13 Macro Supplement Trends 2018-2021

1. Herbs and botanicals are a consumer favorite driven by condition specific formulations
2. Immunity is stronger than ever (for obvious reasons) with new awareness and approaches
3. Protein goes mainstream with plant-proteins being the next big thing
4. Digestive health remains strong with new science/products for the gut microbiome (e.g. enzymes & prebiotics)
5. Eye health could be a “sleeper” trend impacted by increased screen time (blue light exposure)
6. Sleep remains a huge opportunity that is an unmet need in the mass market
7. CBD and other hemp extracts are still in demand but will only thrive when regulatory pathway clears up
8. Brain health is still growing with increasing interest in nootropics for brain performance
9. Inflammation solutions are very high on the consumer radar
10. Omni-channel strategy is becoming essential for maximum growth
11. New, convenient delivery forms are of interest to consumers
12. More transparency and science will be required to succeed
13. Personalization and semi-personalization are coming to a theatre near you

Herbs & botanicals maintain stronger growth than industry as a whole

Herbals and herbal combo formulas are up 23% YOY growth across all channels **post-COVID** outbreak according to SPINS data, and NBJ estimates 19% growth in 2020.

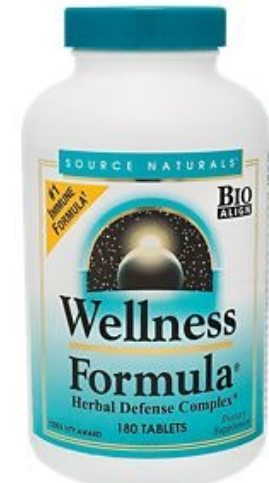


Top Growing Herbs & Botanicals in 2019 & 2020

	2019 Sales (\$M)	2019 Growth
Hemp CBD	602	96.1%
Turmeric	386	1.2%
Ayurvedic Herbs	316	18.5%
Cranberry	189	4.9%
Psyllium	182	8.5%
Fruit and Vegetable Supplements	178	9.1%
Maca	172	1.5%
Elderberry	159	71.2%
Saw Palmetto	153	4.5%
Green Tea	152	-2.5%

Immunity Health Trends

- This health category is unique in that many product sales are in non-tablet forms – especially powders, as well as gummies, chewables and liquids
- Multivitamin/mineral formulas heavy on vitamin C and zinc continue to capture most of category sales.
 - Vitamin C products make up 57% of top fastest growing vitamin products on Amazon
- Homeopathics and lozenges offer natural alternatives to mainstream cough syrups
- Elderberry is one of the hottest supplement trends for natural retailers
 - In the VMS category on Amazon, 20% of the products are Elderberry
- Probiotics are now widely recognized for immunity benefits along with gut health
- Vitamin D has become an important immunity supplement – even non-supplement believers are taking D these days
 - New, advanced forms of Vitamin D include combinations with K2, which is gaining scientific traction



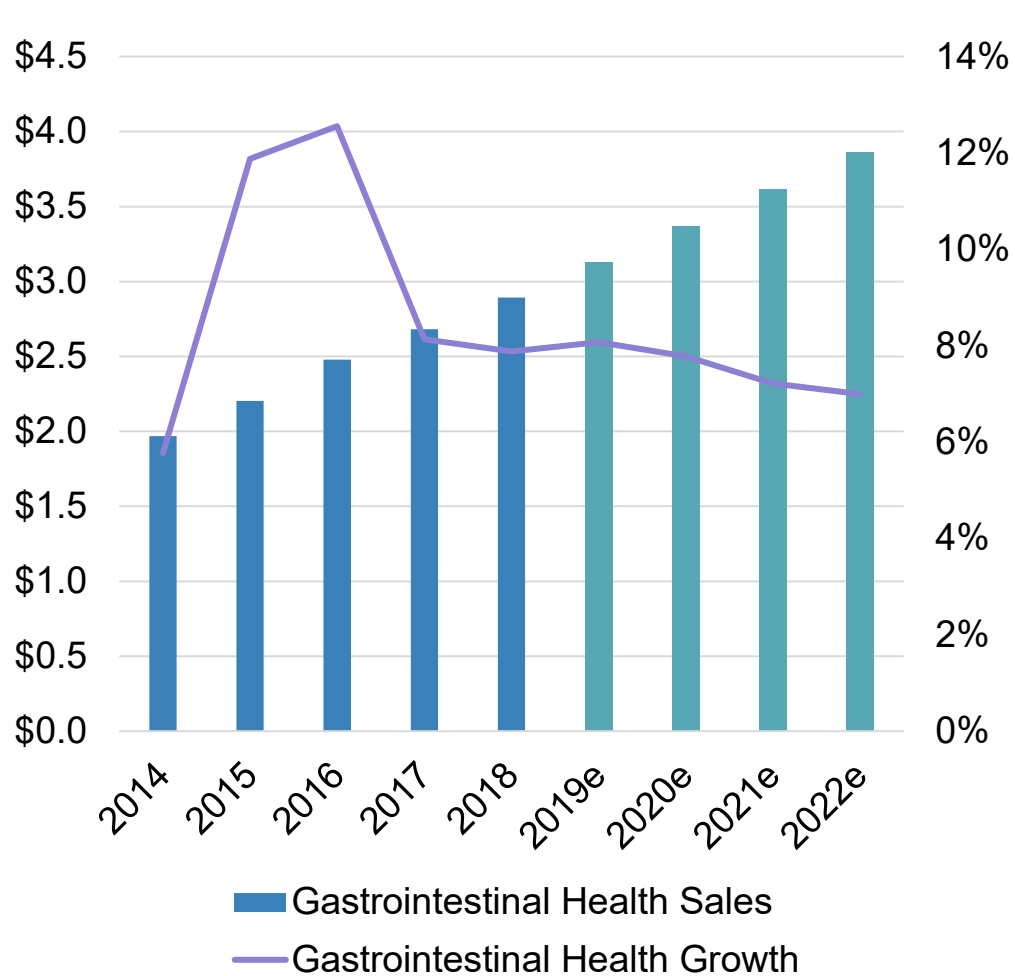
Digestive Health Trends

- Research into the microbiome and personalized test kits are providing consumers with more information on how to improve gut health and overall health
- Increasing appreciation of the benefits of prebiotics and digestive enzymes
- Digestive Bitters, as well as other herbal formulations (including turmeric), are being rediscovered as gut health solutions
- Alternative delivery systems, like prebiotic chocolate bars or digestive tonics, blur lines between supplements and food

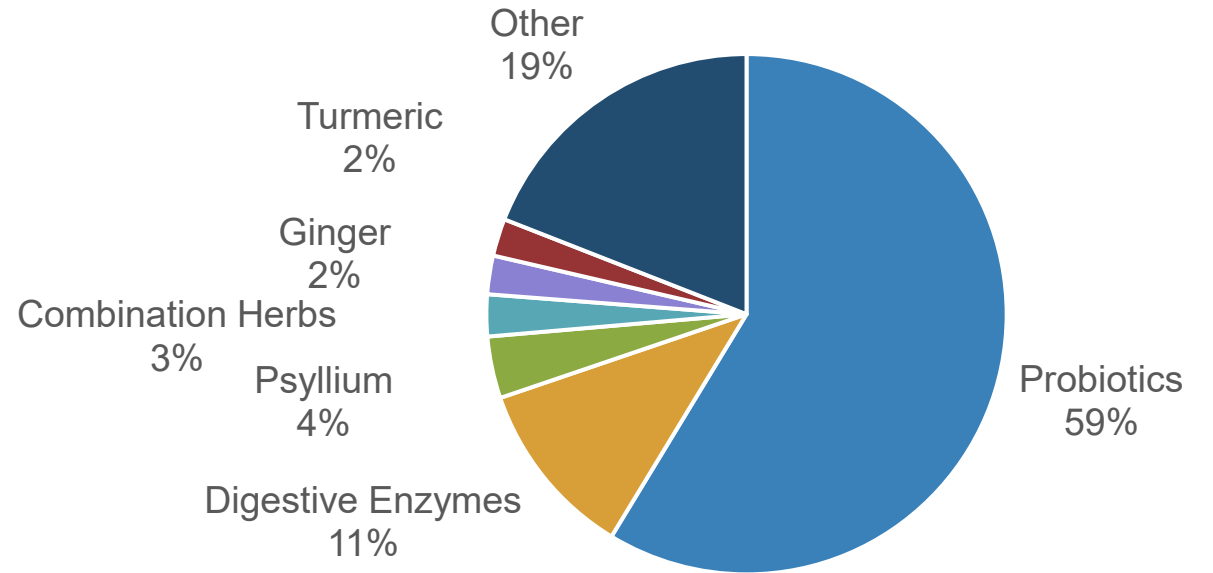


U.S. Digestive Health Supplement Sales

Digestive health supplements had an 8.2% CAGR in 2019 with strong future growth predictions

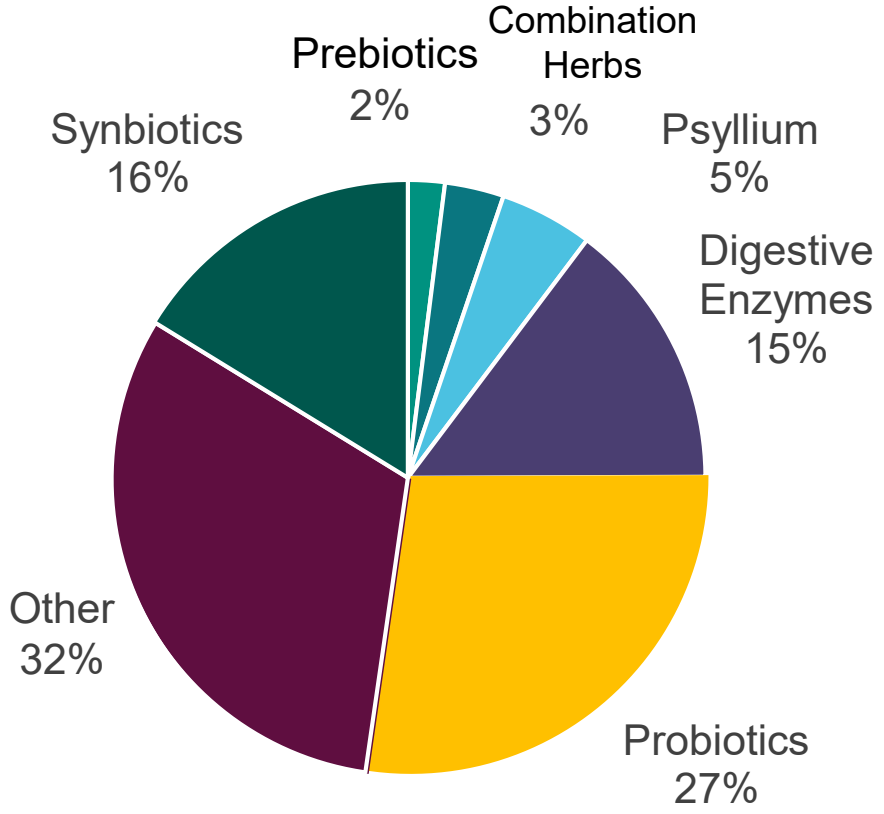
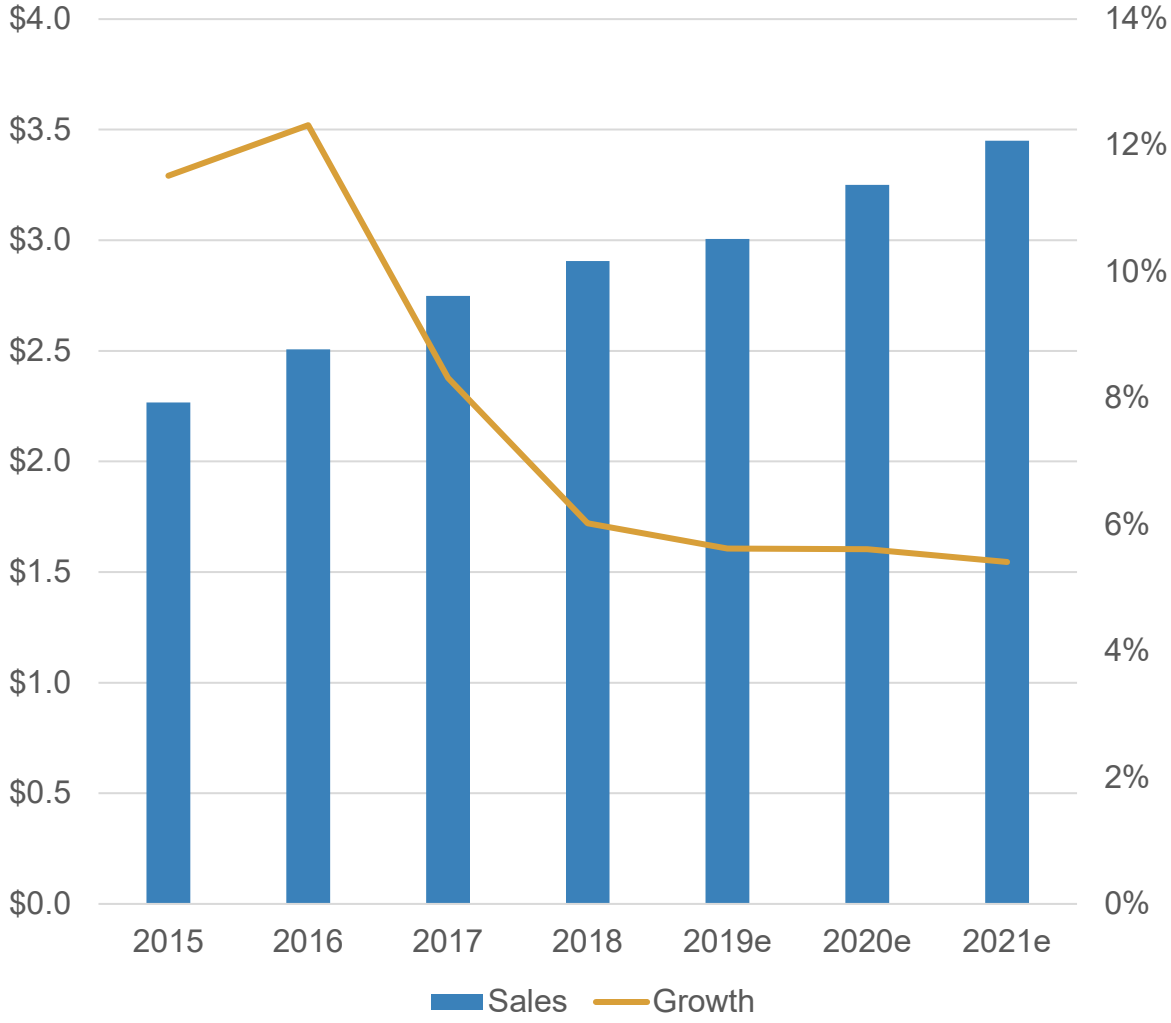


\$3.2B Digestive Health Sales by Product Category, 2019



➤ Pre/Probiotics has experienced one of the strongest growth rates in the industry over the past decade.

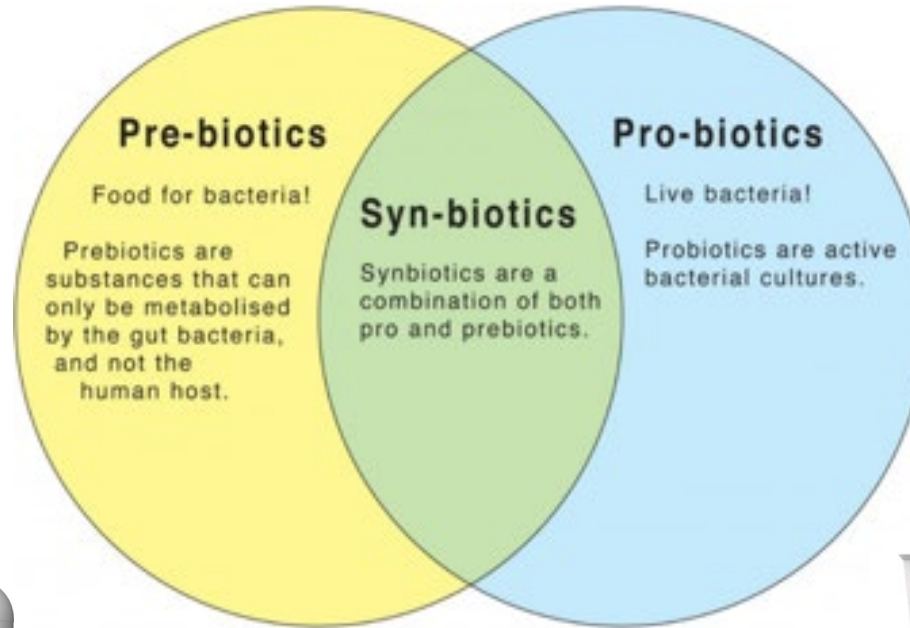
Probiotics currently capture 27% of Gut Health market



➤ Did very well during “stock-up’ phase, dipped in April due to stocking issues, strong growth coming back in May

The Future of Probiotics

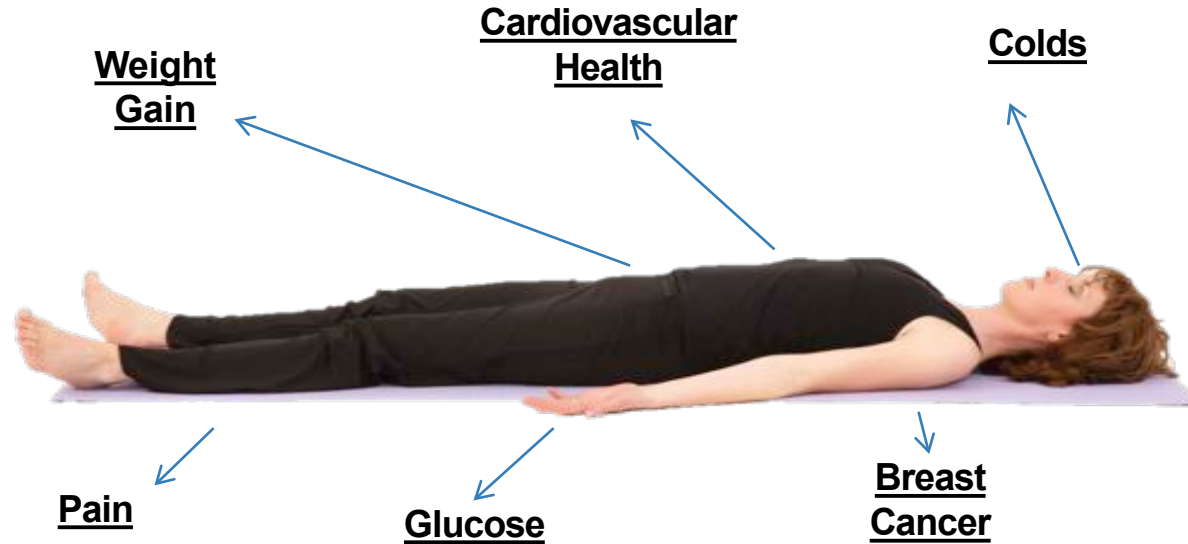
Future innovation will be driven by a better understanding of the microbiome, personalized testing, and more customized “symbiotic” products



Sleep Remains a Huge Opportunity that is an Unmet Need for Consumers

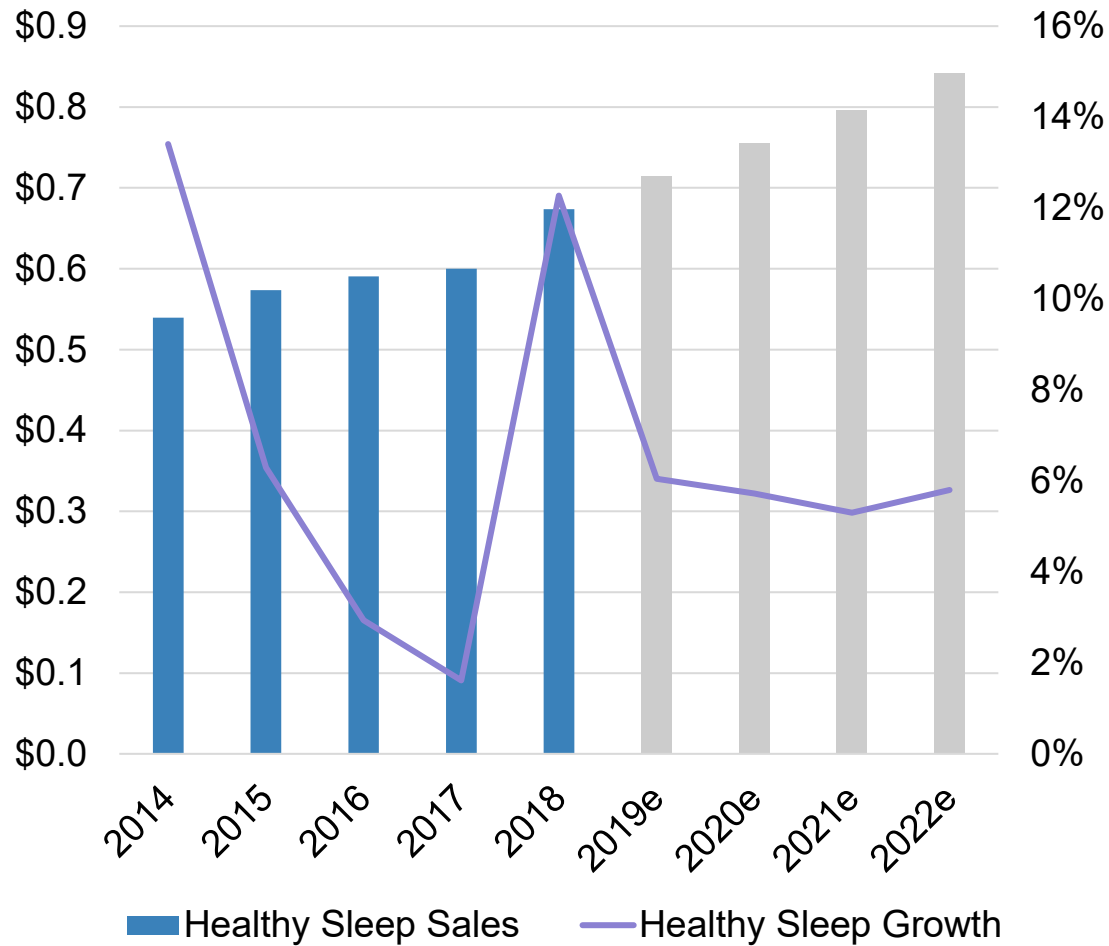
Sleep disorders have severe effect on human health and performance and can lead to various chronic diseases (from cardiovascular disease, diabetes and obesity to impairment of memory, learning, and cognitive function)

Sleep problems add an estimated \$15+ Billion to the national health care costs

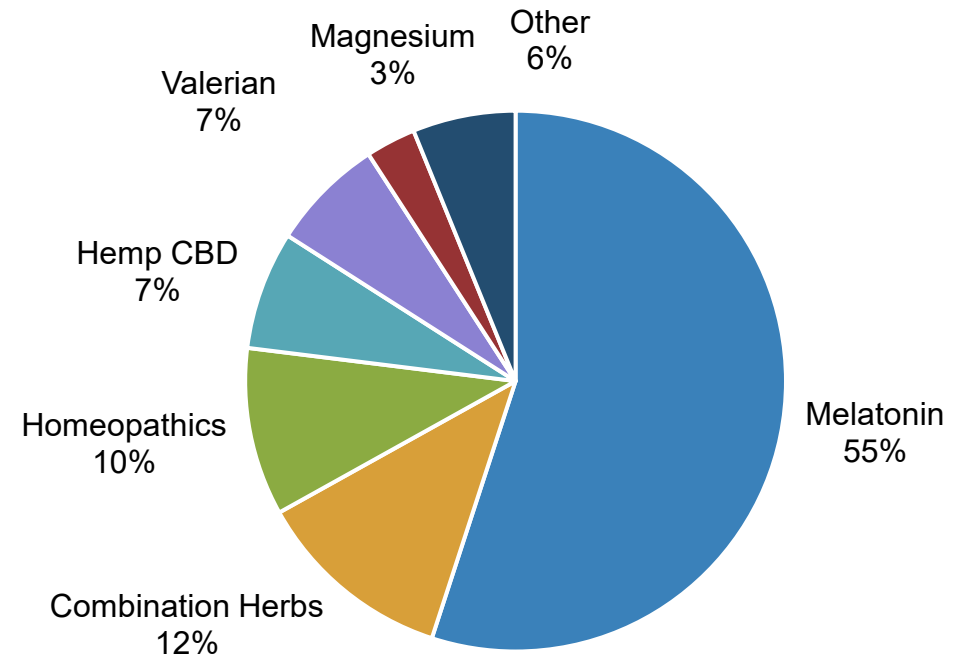


U.S. Healthy Sleep Supplement Sales

Melatonin, CBD, and herbal formulas are big contributors to the healthy sleep supplement market



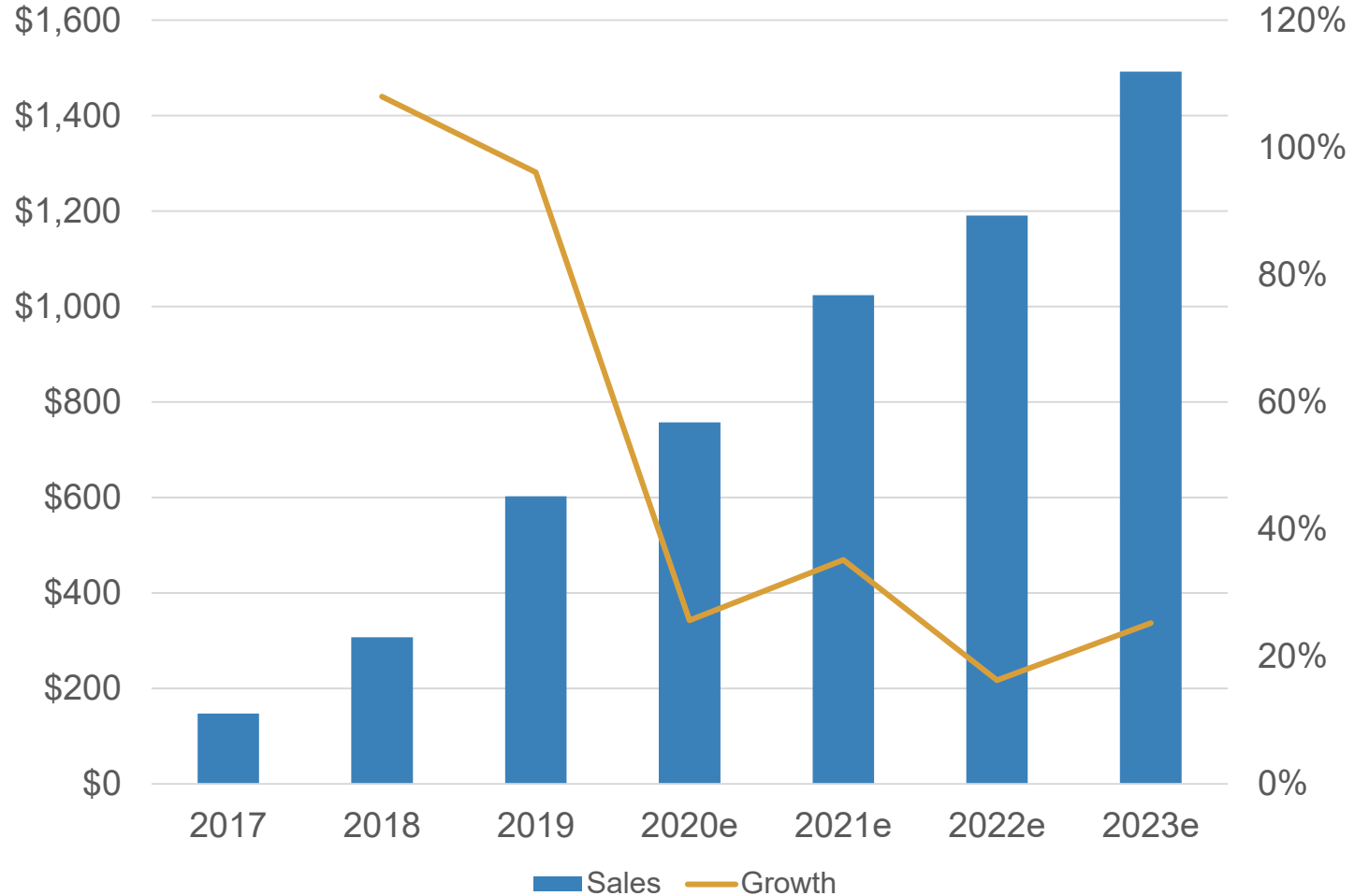
\$715M Healthy Sleep Sales by Product Category, 2019



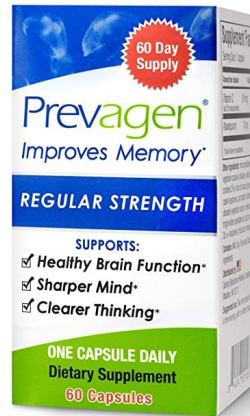
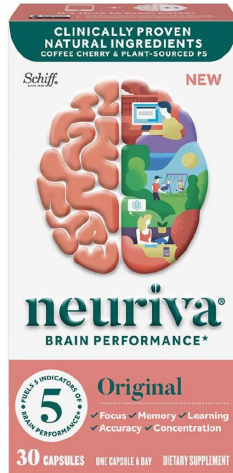
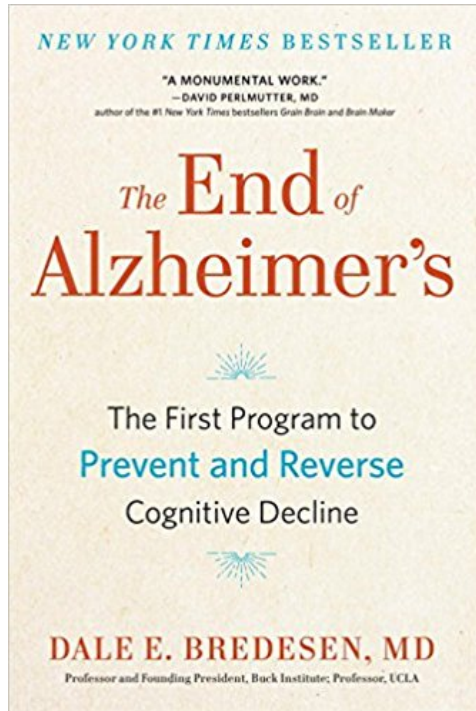
CBD has not disappeared but...

- Growth in sales of hemp-based CBD supplements are dropping from the staggering 96% growth in 2019 to a mere 25.3% estimated in 2020
- The 46% 3-year CAGR predicted in 2019 is no longer in the forecast
- Growth could notch back up in coming years, but this all depends on a better regulatory path

Hemp-Based CBD Supplement Sales and Growth, 2017 - 2023

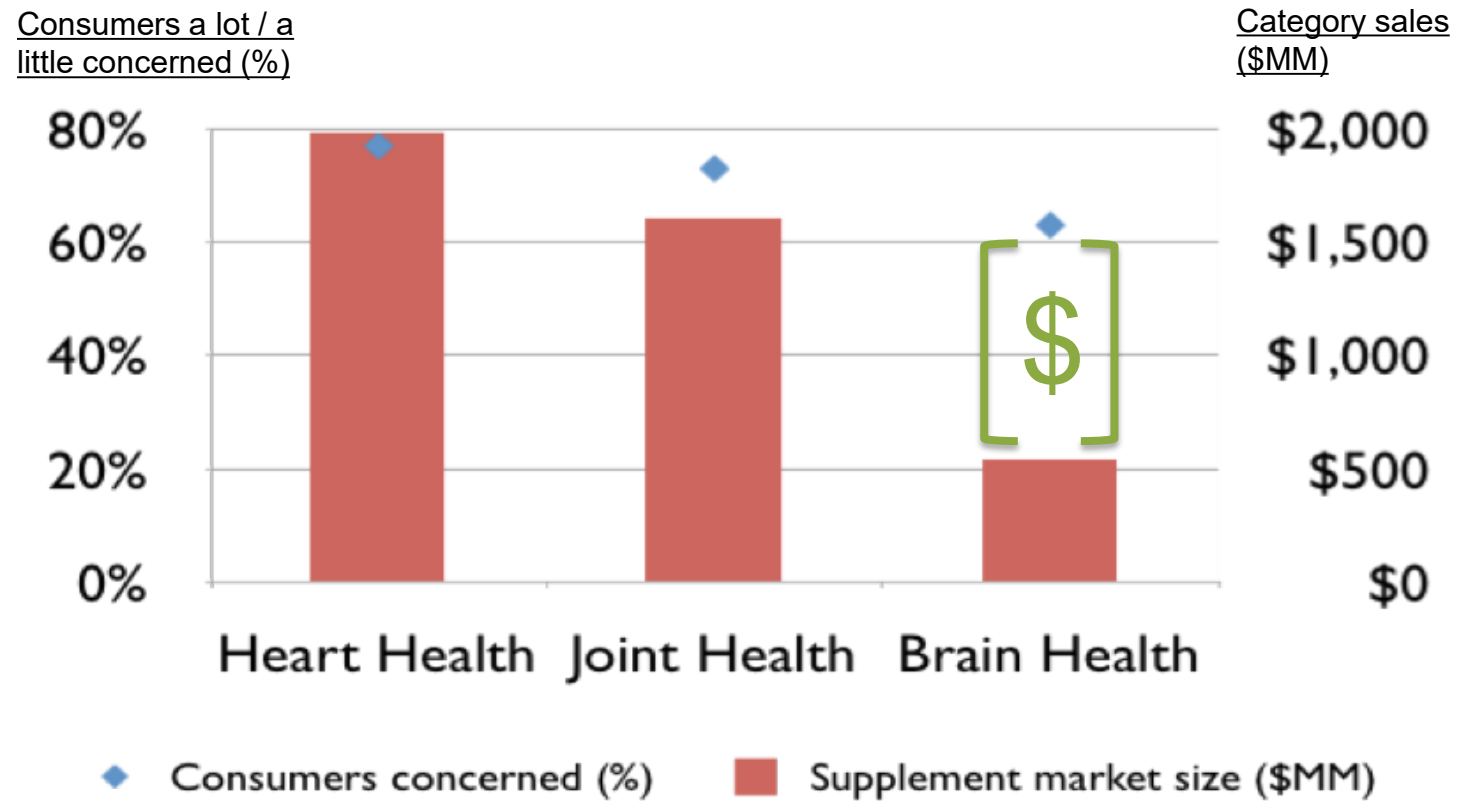


Brain Health Interest Is Growing



- America: 10% depressed, 18% anxious in any given year; 1 in 4 American struggle with an issue related to brain health (*Source: CDC, National Institute of Mental Health*)
- Brain health is a global health crises on par with cardiovascular disease, costing Europe: \$1 trillion annually¹ & the U.S.: \$1.2 trillion annually² (*Source: 1- BMJ & 2- NCBI*)
- \$16.4 billion in direct / indirect medical costs (*Source: Bravewell Collaborative*)
- Melatonin +26%, valerian +11%, kava kava +41% Condition-specific mood +11%, insomnia +12% (*Source: NBJ*)

Brain Health: Still a Significant and Untapped Market Opportunity



Inflammation supplements are very high on consumer radar

Science says inflammation underlies many health conditions...

- Skin health
- Heart & Gum diseases
- Belly fat
- Depression

Sales of turmeric supplements are exploding!

#1 OPPORTUNITY

Single-serve drinks (dairy/fruit/veggies/ dairy alternatives) based on turmeric

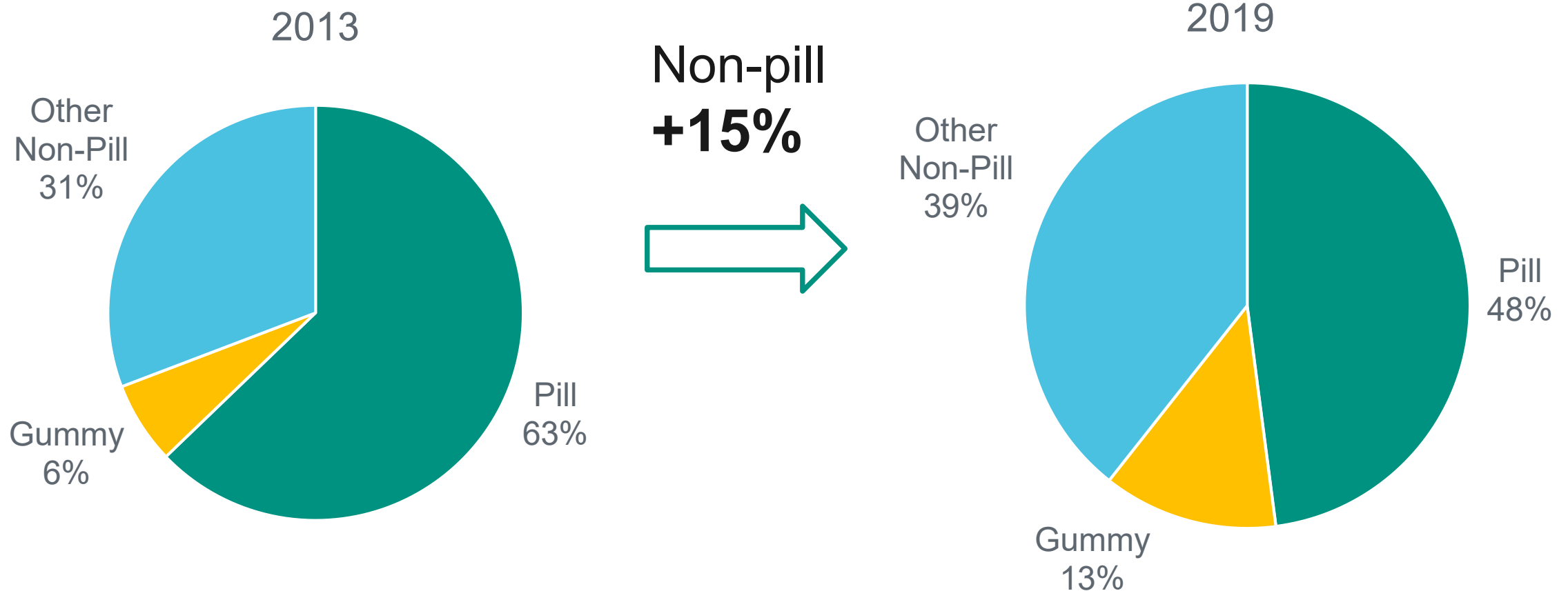
Let turmeric's health halo do the talking... no need for a health claim.

Not convinced? Remember - many dismissed gluten-free as "just a fad"...



For the first time, non-pill surpasses pill supplements

In 2019, non-pill supplements (SoftGel, powder, liquid, gummy, chewable, effervescent etc.) make up 52% of total supplement sales



Personalized Nutrition is Now at a Theater Near Us

WHAT IS PERSONALIZED NUTRITION?

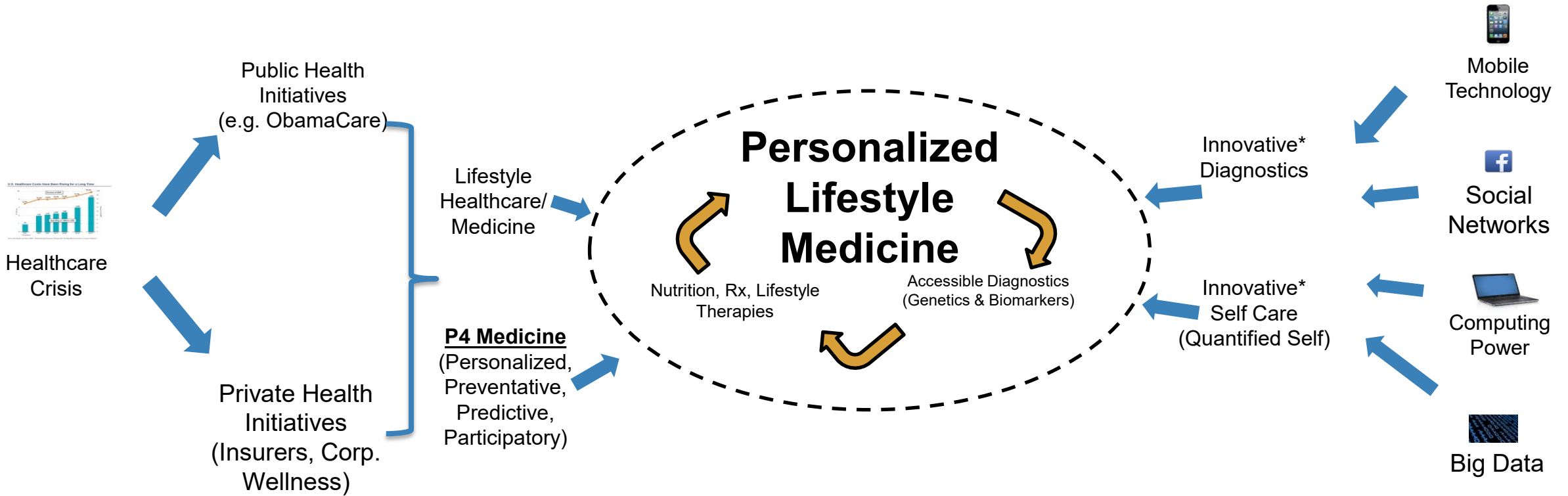
1.0 Yesterday: Shakes and a Scale with a story about personalization (e.g. customized programs and products)

2.0 Today: Engineered foods and customized supplements with a ~~idea that by individualizing advice and support driven by real data, such as saliva, urine, stool, cheek swab, blood spot or skin test~~
Personalized Nutrition (PN): Personalized nutrition is based on the nutrition decisions necessary for our individual need

3.0 Tomorrow: Real-time, wearable and non-wearable diagnostic and consumer (in-home) monitoring technologies with graphical display of nutrients and biomarkers



The Future of Healthcare Driven by Paradigm Shifts in Diagnostics and Technology



*Innovative = Simpler, Faster, Better, Real Time Products & Services

Sources: PLMI, Eric Topol, presented at the NBJ Summit, 2013

NBJ Editorial 2019

Adventures in Personalized Nutrition

NBJ 2019 Personalized Nutrition Issue

Strategic Information for the Nutrition Industry

Bill Giebler, Content & Insights Director
Rick Polito, Editor in Chief

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NBJ 2019 Personalized Nutrition Issue Strategic Information for the Nutrition Industry

Adventures in personalized nutrition

What three years of tests and analysis taught me about myself

By Tom Aarts

As a passionate believer in the power of nutrition, regularly consuming 25 to 30 supplements a day, I was eager to dive into the personalized nutrition movement, seeking out a spectrum of diagnostic technologies to dial in my health.

On these pages in 2013, I captured what companies in the space need to do to succeed. I suggested the future may belong to a company that comes from a testing or technology standpoint and adds to nutrition as opposed to a supplement company that adds diagnostics on top of its products. I still believe that. Among the keys to success is credibility. We should be able to link a sensor on our smartphone and access our personal genome and other key biomarkers. We are not quite there, but we've made great strides in simpler diagnostics and delivery.

There are urine testing devices and satellite attachments that quantify vitamins and minerals. An EKG can be transmitted from phone to doctor. I still believe it's not far off when we'll be able to measure other inputs directly using our mobile phones for various diagnostic tests.

On my journey, I have taken 20 diagnostic tests using the inputs of blood, urine, saliva, and stool. Although some have been around for a long time – we've been taking blood for more than a century – analysis for DNA and the microbiome have advanced. In 2016, I paid \$2,000 for a full genome test. The same test is now under \$500, on its way to \$100 before long.

To pair diagnostic tests with products requires transparency from the outset. Smart companies are using the tests to design a better product for individual consumers. I recently took a Sun Genomics test, a personalized program of products based off stool test results. The idea is to "correct" the microbiome using the product of products. I will be taking the test in three

months to learn if it's working. Most of the results look great, but many left me searching for the "so what?" and also the "now what?" What behavior changes could I make, and would they be easy to follow? The test results can seem overwhelming, and the results difficult to decipher. The conclusions are too often either over-simplified or too complicated. The interpretation and presentation of results are as important as the results themselves.

Robust technology is paramount, but when brands can't explain what behavior consumers should change and what benefits they can expect, the value proposition falls flat. I started my diagnostic journey in 2016 with a 23andMe test. My results were difficult to understand. I used the Nutra-Hacker app to decipher the data, which told me some very interesting things, but I still needed expert help to tell me what I should take away from my genome testing.

I've done five personalized blood tests, six DNA tests (including my full genome) and seven microbiome tests. Some provide only results, others angle their testing to sell supplements. I've done a few additional tests that help me monitor those diagnostics, including the Oura ring for sleep, stixie urine test strips for blood flow, and Zewa'skin's MENSIO device for assessing muscle alignment (a predictor of muscular degeneration and damage from blue light).

My motivation is not solely my interest in the industry. I also want to see where I can move the needle on my health and possibly catch conditions before I see symptoms. I was inspired by Dr. Larry Senese, an anthropologist turned computer scientist and one of the top researchers and thinkers at the University of California San Diego in the "Catal" computer engineering based off stool test results. The idea is to "correct" the microbiome using the product of products. I will be taking the test in three

NBJ Takeaways

- Personalized nutrition requires tools that can be supportive
- Interpreting results from DNA and microbiome testing may be too difficult for consumers
- It's not clear whether consumers will follow nutrition recommendations any better than most nutrition advice

ably clearing the body's microbiome and specifically his one gut – effects chronicled in *The Microbiome Man*.¹ I wanted to be the most successful man in the nutrition industry.

Changes made

Despite the challenge of interpreting the means of results, I now feel confident many of the answers I found will make a positive impact on my health. I've already changed my behavior in several ways. In my 23andMe test, I learned my ability to process vitamin B is reduced 69%, a variation caused by many functional/integrative medicine doctors. I don't metabolize vitamin B properly, and I need a different form of vitamin B. As soon as I started taking methylfolate, my energy increased and I felt better. DNA testing also told me I have the APOE 3/3 gene combination and not the 4/4 combination, which increases the lifetime risk of early onset Alzheimer's disease by over 50%.

My father suffers from moderate dementia at 89 and his grandmother died at 88 with dementia. I'm appropriately but vaguely concerned about my cognitive health, but I was happy to learn that I have the 3/3 combination, which greatly makes me 9% more likely to get Alzheimer's. Still, I'm now looking at what I can do to stay sharp

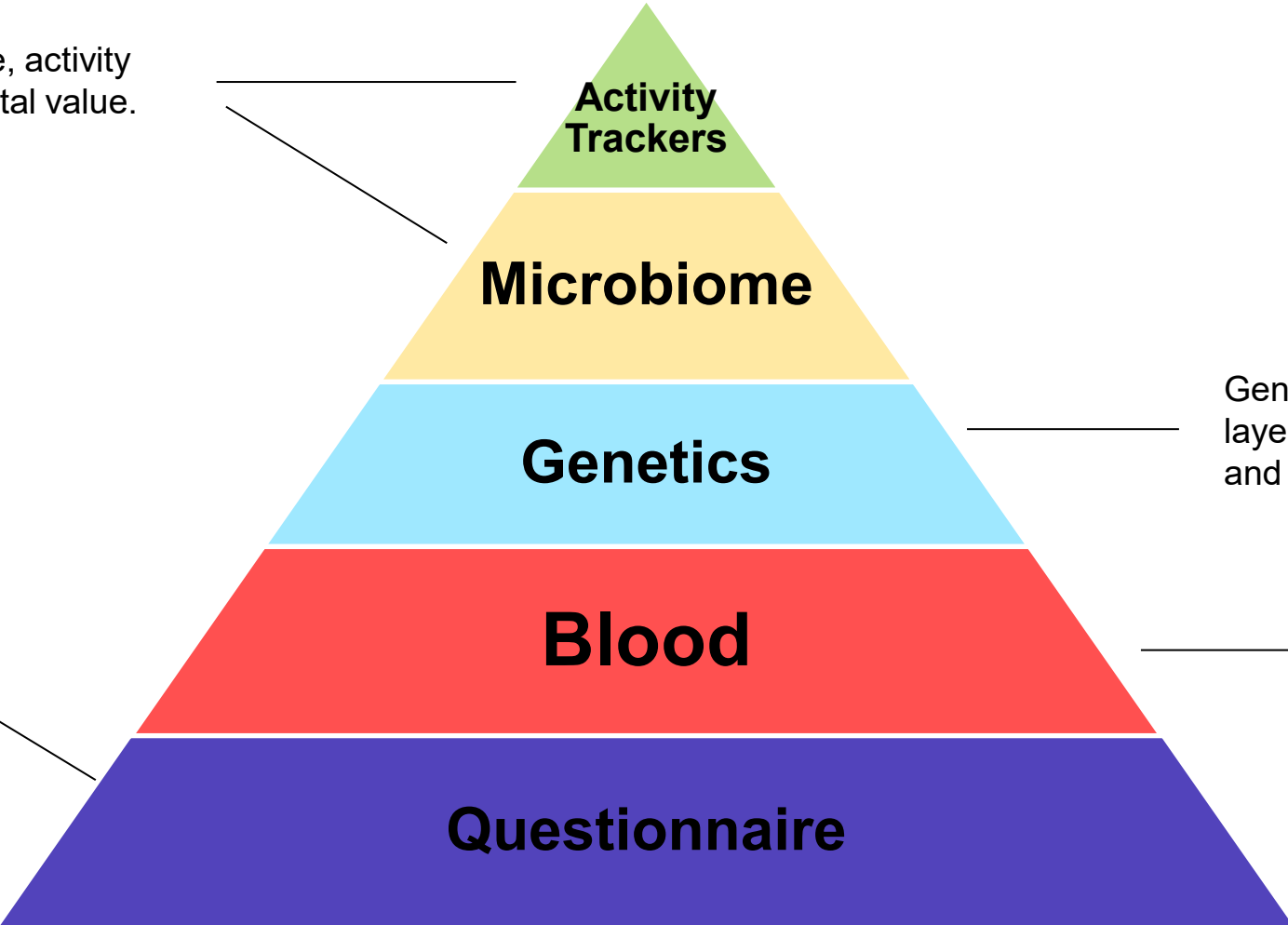
DECEMBER 2019

NWPHR.COM | 25

1. We have made great strides in simpler diagnostics and delivery, but Personalized Nutrition is not yet at it's full potential
2. One of the main challenges that I had was interpreting the results of the more extensive microbiome tests. There is a noticeable difference in the reports that are coming from a company who's agenda is to sell a supplement or treatment vs. those who sell the diagnostic tool as their main product.
3. Personalized Nutrition can be brought into the mass market consumer when they are ready for it. Right now, we have to meet the consumer at a very basic level and make things as easy as possible for them. As it get's easier and cheaper, it will disrupt our industry in the best possible way.
4. I have taken more than 20+ personalized nutrition tests in the last 3 years, and been able to change some of the behavior linked to my health outcomes.

Personalized Nutrition Inputs

Additional inputs (microbiome, activity trackers) contribute incremental value.

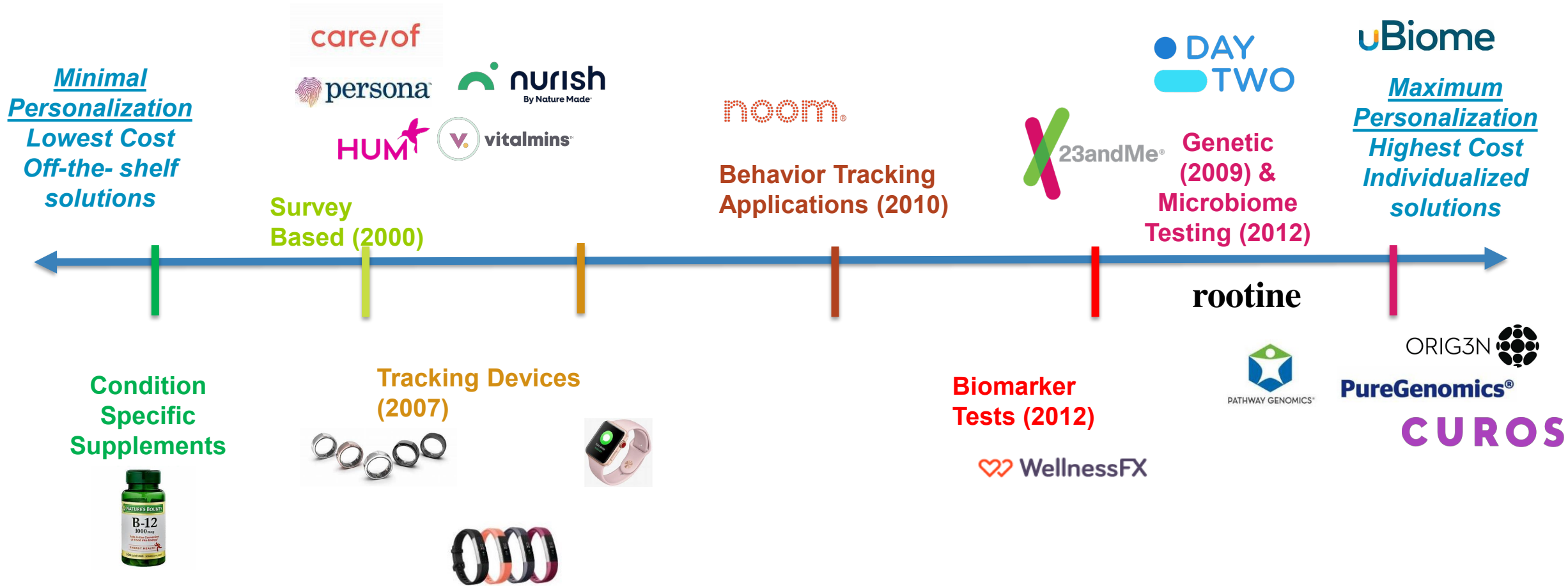


The Foundation of Entry Level Personalized Health Analytics

Genetics adds a second layer of personalization and granularity

Core inputs with history & reliability; innovation in collection on the horizon

Landscape of Personalized Nutrition – 2020



Personalized Nutrition & The Microbiome

- The growth in interest and science around the microbiome has provided another platform for personalized nutrition that will be disruptive.
- Companies like Ubiome in 2010, Viome in 2014 and Biohm in 2015 have offered reasonable microbiome tests with mixed quality on the interpretation and results.



uBiome



VIOME



Personalized Nutrition & Genetic Testing

- Genetic testing can offer a simpler solution diagnostically, by using a saliva sample, but this is somewhat limited to specific results.
 - Option to include other inputs (such as blood) for epigenetics.
- This category is crowded and confusing and often needs a practitioner or an interpretation tool using AI.
 - Practitioner or AI interpretation usually only address part of the problem.
- The two largest companies in this space are 23+me and Ancestry, but these companies are not as focused on the health implications. However, these data sets contain a lot of value to consumers and their health if properly interpreted.



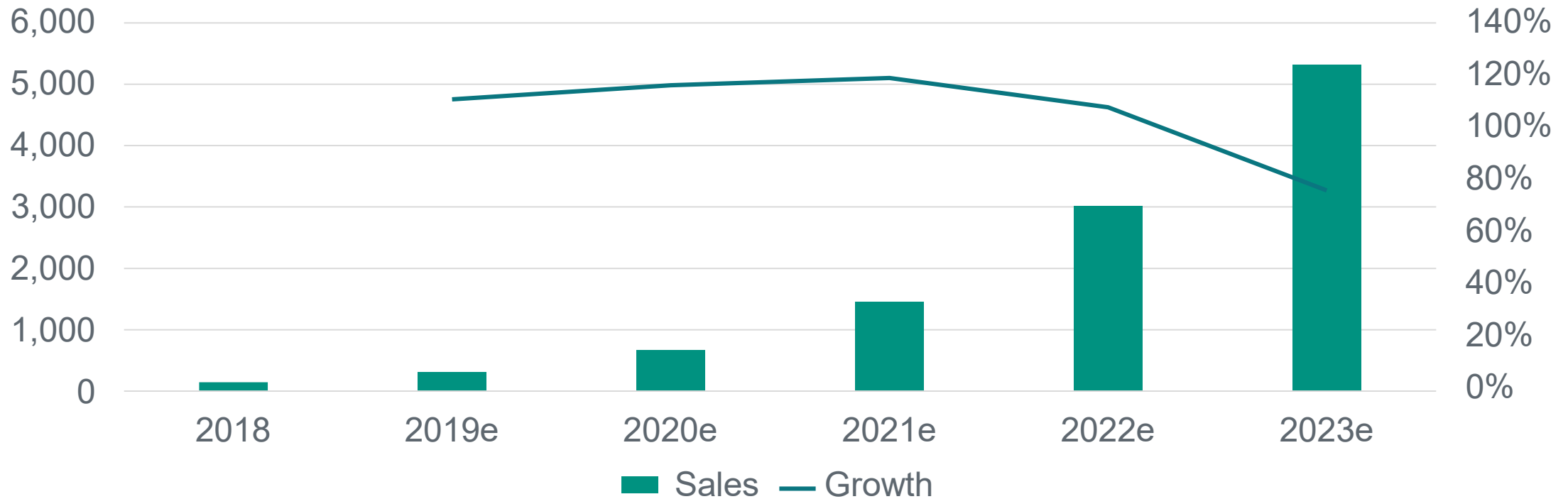
CUROS

 **ancestry**

PureGenomics[®]

Personalized nutrition drives growth across categories

U.S. Personalized Nutrition Supplement Sales grew an estimated 110% to **\$306M** in 2019



Supplement Companies Starting to Invest in Personalized Nutrition



PHARMAVITE

launch

→

Jan 2020



nurish
By Nature Made®

Tell Us About You

Using our simple but comprehensive quiz, tell us all about your passions, your wellness goals, and your nutritional habits.

[TAKE QUIZ](#)

→





Nature's Way

investment

→

Aug 2019 (\$6M)



Baze



→





Reckitt Benckiser

launch

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Oct 2018



vitalmins™



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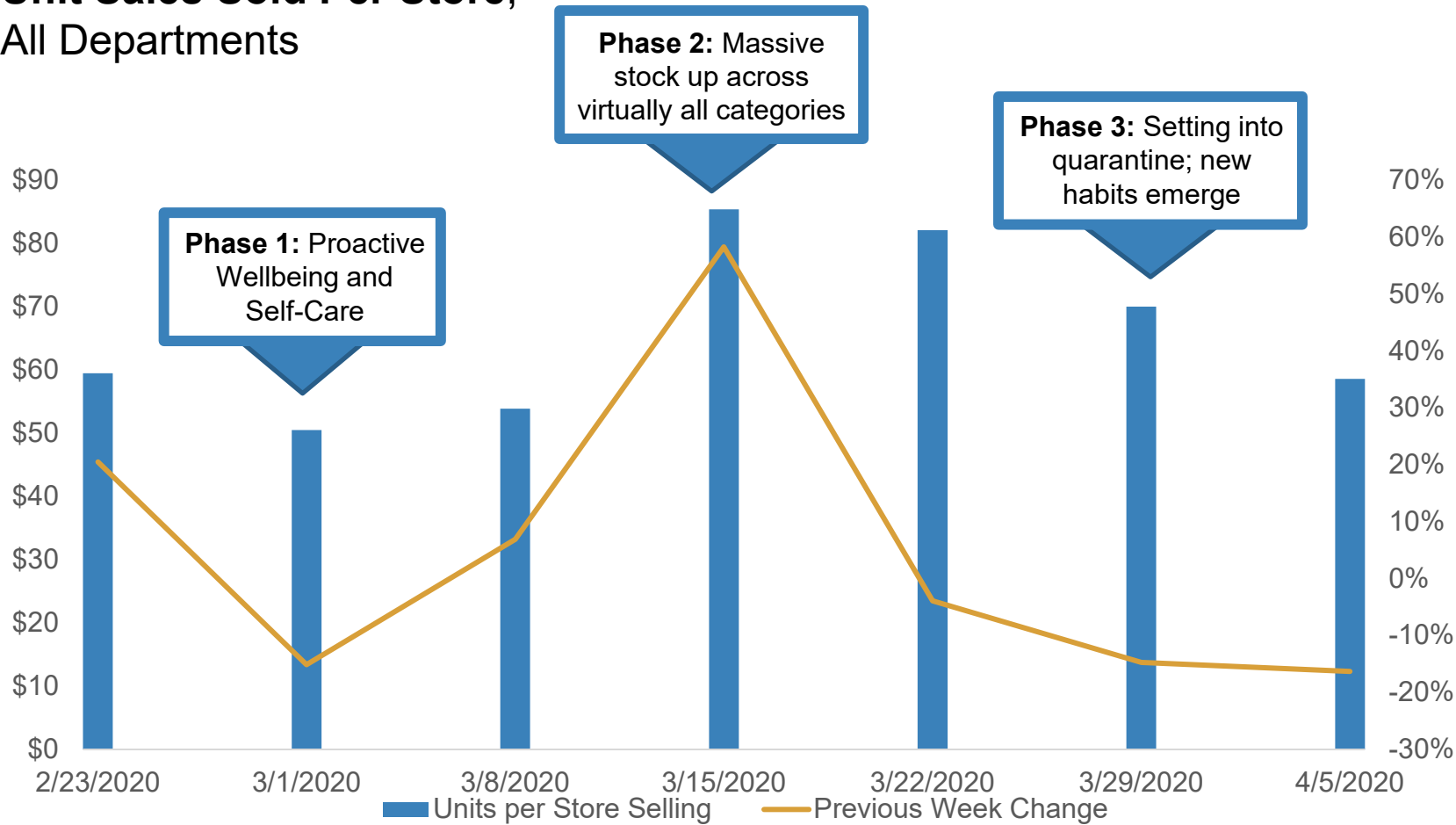
IV. COVID-19 and Beyond



Consumer buying patterns have shifted since COVID-19

SPINS data shows 4 distinct phases of buying behavior for consumers, accounting for the pandemic and subsequent economic impact

Unit Sales Sold Per Store, All Departments



Phase 4:
Life in place; DIY is the new norm

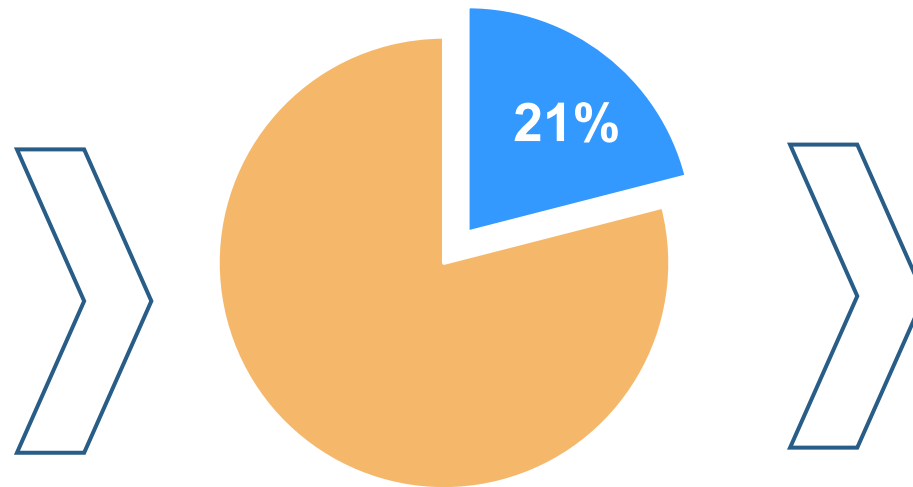
- Consumption has moved from out-of-home to in-home
- Continued purchasing of supplements to boost immunity, improve sleep and stress.

The path for dietary supplements, COVID-19 and beyond

Consumers see dietary supplements as a way to manage their health and are taking more of them

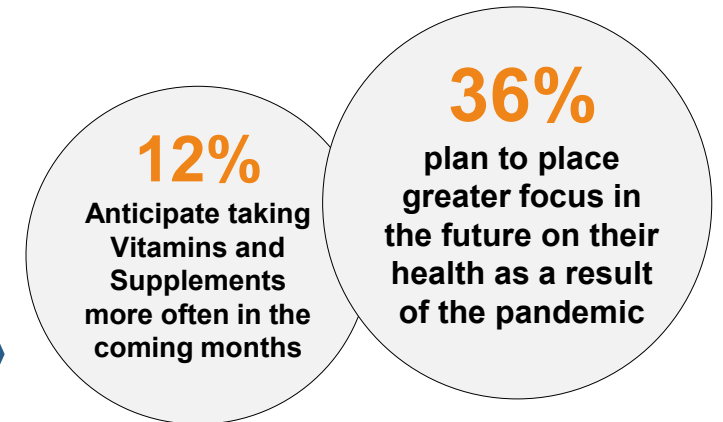


% of General Population indicating they have started taking vitamins or other supplements in light of COVID-19 outbreak



“I have **started taking vitamins or other supplements** in light of the COVID-19 outbreak”

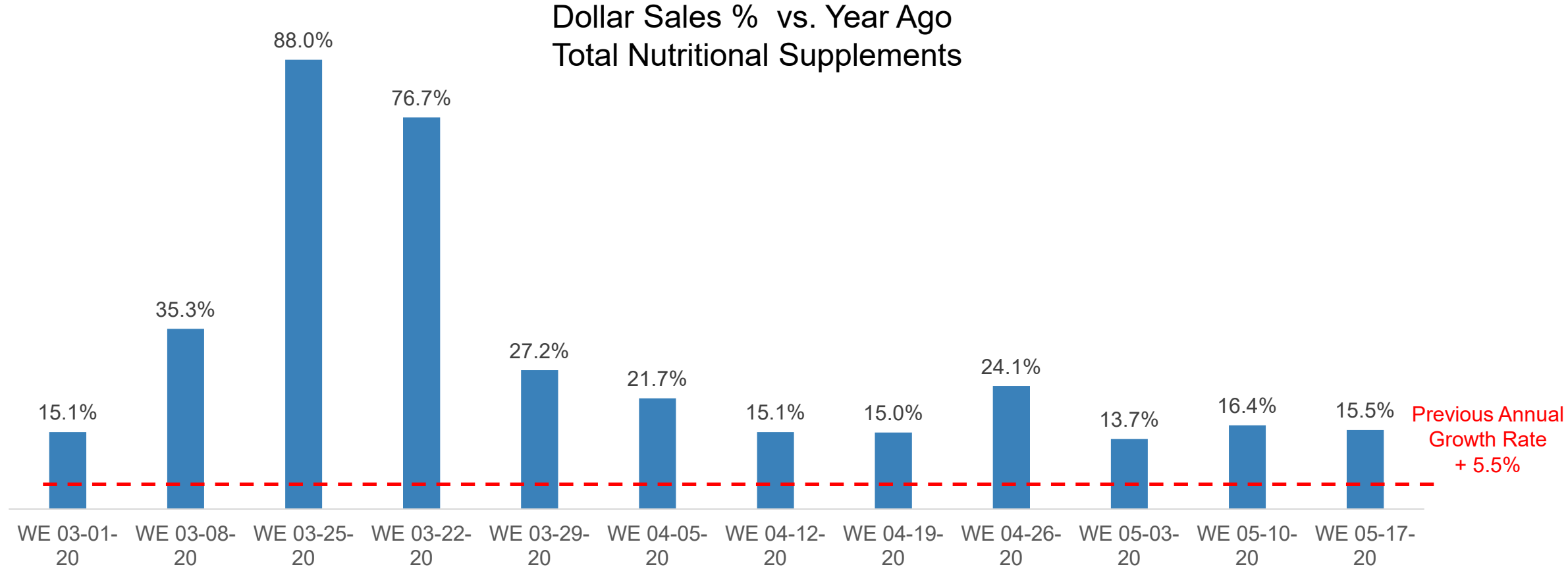
Supplements were deemed an essential business by the government, alongside pharmaceuticals – as a result, the industry has been able to produce, innovate, and thrive.



Behaviors that may last.

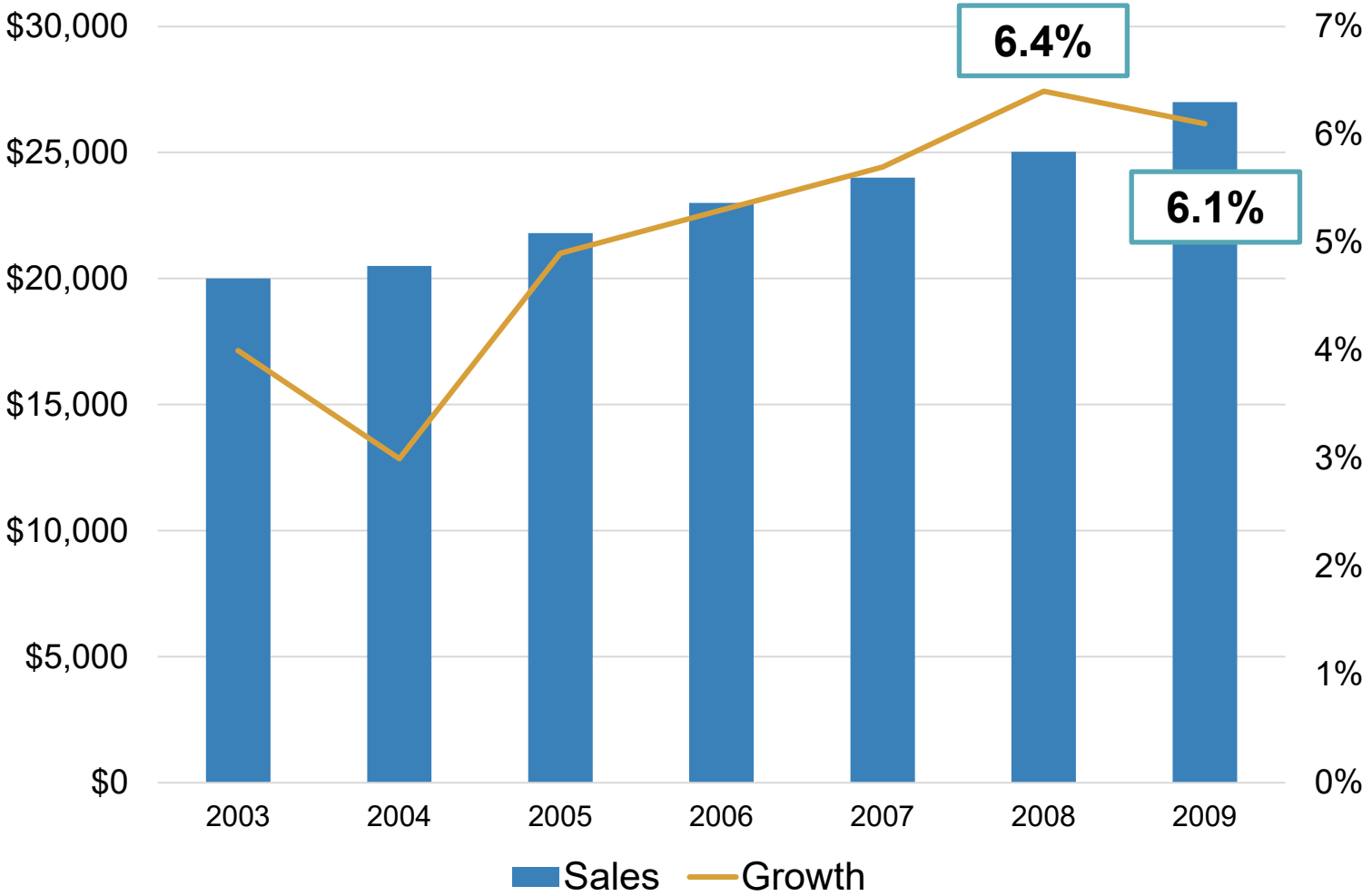
Panic buying has eased, but consumers should continue to demand immune-boosting, stress-relieving, and sleep-enhancing supplements for overall health.

Continued Consumer Demand For Supplements Suggests Increased Usage vs. Solely Pantry Stocking



Supplement Sales During and After the 2008 Crisis

Supplement Industry Sales & Growth, 2003-2009



Top Growth Categories

	2007	2008	2009
Vitamin D			
	49.4%	116.5%	81.9%
Probiotics			
	21.3%	16.3%	23.9%
Melatonin			
	14.1%	19.8%	19.9%
Fish/Animal Oils			
	32.1%	19.8%	17.2%

Real-time Information

Netrush POS data (03/20)

- A larger share of top products are immunity related
- Of the top 20 products with the highest YoY traffic growth, 10 products (50%) are immunity and or lung related. They have an average of 612% traffic growth
- Overall, 8% of products saw significantly lower traffic and 26% saw significantly higher traffic (50% to 200+% increase)

Amazon Overall (03/20)

- 17 of the top 20 vitamin category products are immune-related
- Top 500 vitamin products are dominated by C,D, and multivitamins with immune support
- 57% of top 100 fastest growing vitamin products are Vitamin C
- In the overall category, Vitamins and Dietary Supplements, 20% of the top products are Elderberry, including the current #1 ranked product in all of Health and Household (above toilet paper and face masks), and 20% are Vitamin C.
- Among the top products in supplements, digestive health, probiotics, and protein are doing well

Amazon Overall (06/2020)

- 10 of the top 20 vitamin category products are immune-related
- The top still includes C,D, multivitamins with immune support but also biotin, Men's Health multis, Children's vitamins, and collagen
- In the health and household category, elderberry and other immune products are back below trash bags, paper products, and batteries

Thank You + Questions

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