Supplement Trends and Market Opportunities Report

PLANT SCIENCE

RESEARCH DEVELOPMENT MANUFACTURING

Who Is Plant Science?

Turn-Key Manufacturer

We are your partner from research and development all the way through finished good production. Streamlining and solidifying sourcing creates increased buying power with our suppliers.

Trend Innovator

Rather than just following trends we will help you develop, formulate, and validate products that create trends.

Customer Service

We consider our relationship with our clients as a true partnership. We are highly selective of who we work with, enabling us to give the greatest amount of attention to each part.

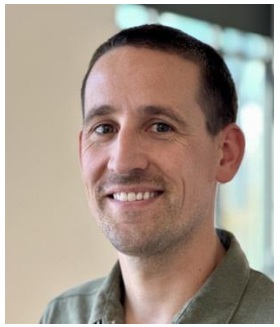
Our management team is at your service

Justin Plant
Managing Partner

Kelly Bryan
Quality Director

Perrin Gerber
Product and Partnership Manager

Preston Smith
Supply Chain Manager



Grant Barber
Accounting and Finance Manager

Elliott Evans
Manufacturing Manager

Parker Dunn
Senior Research & Development Manager

Innovation is the goal of our Research and Development team

Parker Dunn
Senior Research & Development Manager
Food Science B.S.

Kiera Knight
Research & Development Customer Innovation Manager
Food Science B.S.

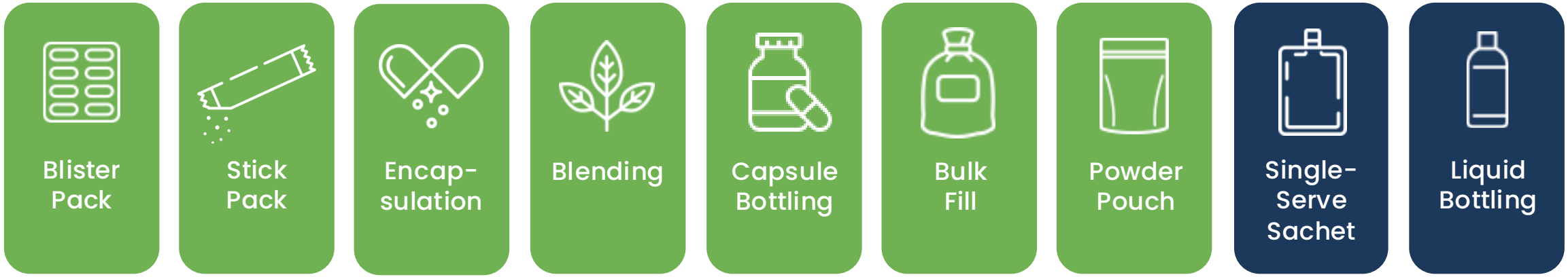
Ibrahim Sagara
Research & Development Scientist
Biotechnology, B.S.

Natalia True
Research & Development Scientist
Food Science B.S.

High-Capacity Capabilities for Powder and Liquid Supplements

POWDERS

LIQUIDS



These machines provide the highest efficiency. Each machine is custom built to our specifications by the finest manufacturers in Europe. We're able to produce significantly more finished goods per hour for competitive unit pricing.

Our machine operators have years of experience and are specifically trained in procedures with mentor partnerships. This training provides critical knowledge of safety, cleaning, ingredient blending, flow, consistency, and set up of substrate materials.

Production Capacity Powder

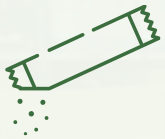
Blister Pack

13%
Monthly Utilization

3.6M
Total Monthly Capacity

120K
Daily Units

Stick Pack



18%
Monthly Utilization

28.2M
Total Monthly Capacity

1.6M
Daily Units

Encapsulation

15%
Monthly Utilization

47M
Total Monthly Capacity

950K
Daily Units

Capsule Bottling

11%
Monthly Utilization

360K
Total Monthly Capacity

12K
Daily Units

Blending

11%
Monthly Utilization

200KG
Total Monthly Capacity

6,800 KG
Daily Blending Cap.

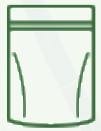
Production Capacity Powder (cont.)

Bulk Fill

13%
Monthly Utilization

240K
Total Monthly Capacity

8K
Daily Units



Powder Pouch

24%
Monthly Utilization

540K
Total Monthly Capacity

18K
Daily Units

Production Capacity Liquid

Single-Serve Sachet

30%
Monthly Utilization

2.3M
Total Monthly Capacity

78K
Daily Units

Liquid Bottling

17%
Monthly Utilization

120K
Total Monthly Capacity

4K
Daily Units

Plant Science Facilities

New Headquarters

730 N. 2800 W.
Lindon, UT 84042
45,000 sq. ft.

- Expanded R&D Labs
- Pilot-Run Manufacturing
- Liquid Manufacturing
  - Gel Packs
  - Bottles
  - Blending
  - Receiving

Building One

1444 S. 500 E., STE 150
American Fork, UT 84003
38,000 sq. ft.

- Powder Manufacturing
  - Stick Packs
  - Pouches
  - Capsules, Bottle & Blister Cards
  - Bulk Fill
- Procurement Offices
- Quality Management Offices
- Assembly

Expansion: Increasing Capacity, Redundancy and Scalability

New Facility Added

We've added a second facility for a total of 83,000 sq. ft. This additional space houses new production lines and streamlines operations, ensuring the ability to handle increased demand.

Equipment Redundancy

(Two Additional Stick Pack Lines) Doubling stick pack production enables us to deliver faster turnarounds and mitigate any disruptions, providing added security for your supply chain.

New Capsule Bottling Line

Our enhanced bottling capabilities will increase efficiency and product variety, giving clients more flexibility to bring innovative products to market.

Expanded Liquid & Bottle Capacity

With increased capacity for Gel Pack and liquid products, we're better equipped to support your growth with scalable solutions for gel packs and bottle-filling needs.

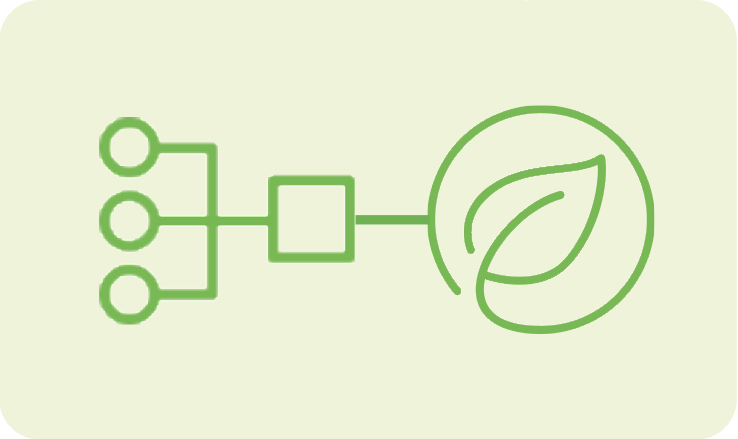
R&D Pilot-run Manufacturing

This allows for small pilot runs for test markets and distributor samples. It allows you to evaluate the market and formula before moving to full-scale manufacturing.

This expansion isn't just about adding square footage or new equipment—it's about strengthening our partnership with you. By enhancing our production capabilities and reinforcing supply chain reliability, we're positioning ourselves to be your trusted partner for years to come.

Supply Chain Integrated Systems

Integration of systems for higher level ERP and MRP. This plans inventory replenishment with full MRP functionality and improves cycle time on finished goods.



Fully integrated supply chain partners to streamline orders and reduce logistics costs and time.

Quality Control and Management

Strict quality control procedures and management is maintained.

These procedures include:

- Testing
- Cleaning
- Certifications
- Inspections

Plant Science is committed to meeting and exceeding manufacturing quality standards identified in our certifications.

USDA ORGANIC · NSF GMP CERTIFIED NSF/ANSI 455-2 Dietary Supplements · FDA REGISTERED FACILITY · UDAF · GMP GOOD MANUFACTURING PRACTICE CERTIFIED · HALAL · CERTIFIED KOSHER · Health Canada

Value of Time-to-Market

Understanding the product lifecycle is valuable to market position and growing consumers.

Products have a life cycle A newly released product with novel research and nutrients has a higher perceived value. This value allows for better margins and the opportunity to increase market share. The longer the novel product is on the market competitors will catch up, thus moving the product to a commodity phase. This phase reduces margins and the opportunity to influence new market share. At this phase of the lifecycle the unit price becomes a major factor for the consumer's purchase decision.

Plant Science has created a proprietary model that reduces the time to market for new products. This model includes on-site R&D, procurement validation, and rapid manufacturing. This proprietary model is designed for rapid delivery, which increases the benefits of the early phase of the product lifecycle.

Consumer Packaging Experience

Packaging is powerful. It can evoke emotions with a consumer, establish corporate values, brand benefits, and build loyalty.

The top 3 reasons for purchases are:

- Sustainability
- Convenience
- Safe & Resealable

Packaging design can be used to promote nostalgia, excitement, luxury, and lifestyle. The experience begins when unboxing the order. The unboxing becomes the "store" experience. By creating unique and pleasing packaging encourages customers to share the unboxing experience.

Packaging also delivers the message of the company and its values. Using environmentally sustainable and recyclable packaging establishes and reinforces the corporate commitment to the planet's ecosystems.

Plant Science has custom pack-out services for unique boxing and packaging.

The Power of Samples to Grow Sales

Research has shown as high as 81% of consumers will try a new product after receiving a free sample. This is a powerful mechanism to build relationships, drive loyalty, and encourage repeat customers. Product sampling removes the risk factor with trying a new product. The rule of reciprocity is another factor that contributes to the success of free samples. People feel obligated to return the favor.

Ways to incorporate free samples:

Setup a landing page on the website for customers to request a free sample.

Free samples are given in exchange for social media posts and reviews.

Free samples included with an existing product order. Also include a promocode for savings on the first order.

This fosters the idea of consumer appreciation and loyalty.

Flavor Demographics and Trends

Flavor trends are changing rapidly, partly due to the rise of social media, making it even more important to know the demographic and region of the target consumer. **Flavor is the overwhelming decision factor at 75% for the consumer's initial purchase.** Convenience with on-the-go packaging is essential for retention. Trends are strongly toward functional, good tasting beverages. It is more important than ever to stay ahead of the moving flavor trends.

Current Flavor Trends

- Sugar
- **30%** Citrus Flavor
- **+132%** Functional Waters
- **+721%** Energy Drinks
- **+154%** Plant-based & Dairy-free
- **+173%** Mushroom Coffee
- **+121%** Fruit Fusions

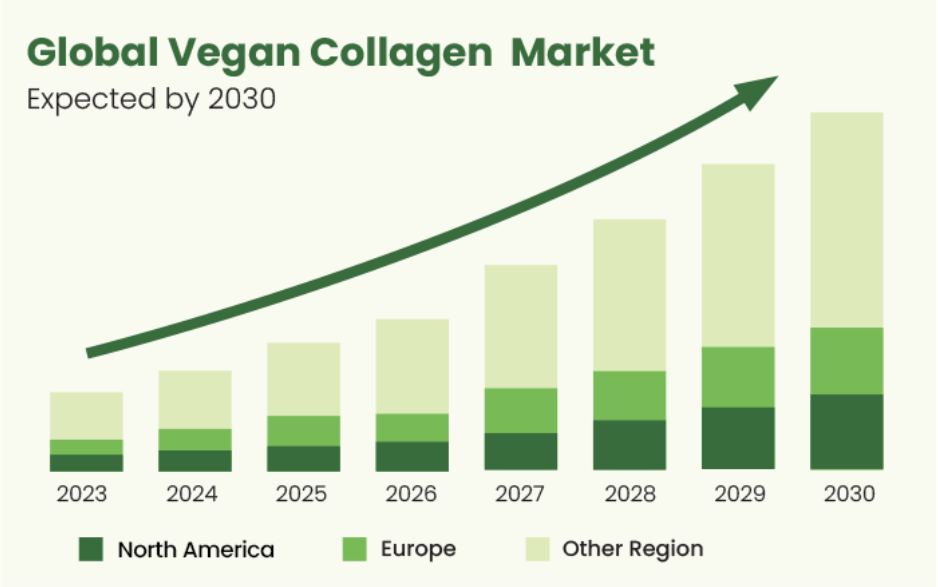
Plant Science provides demographic flavor testing

GenZ growing market in flavors like pineapple, black berry, and raspberry. Citrus remains the most classic flavor preference at 30%. Flavors include: calamansi tangerine, yuzu, blood orange, and pomelo.

Collagen

Collagen types I, II, and III are vital proteins needed for human connective tissues, such as skin, tendons, and joints. Numerous studies support the efficaciousness of collagen. Formulations combined with vitamin C & D and minerals are essential for collagen absorption.

Collagen growth rate continues to increase with a 56% growth in sales in 2021. Projected growth of collagen is 25% CAGR to 2030. Vegan diets coupled with aging population is driving growth in this supplement sector.



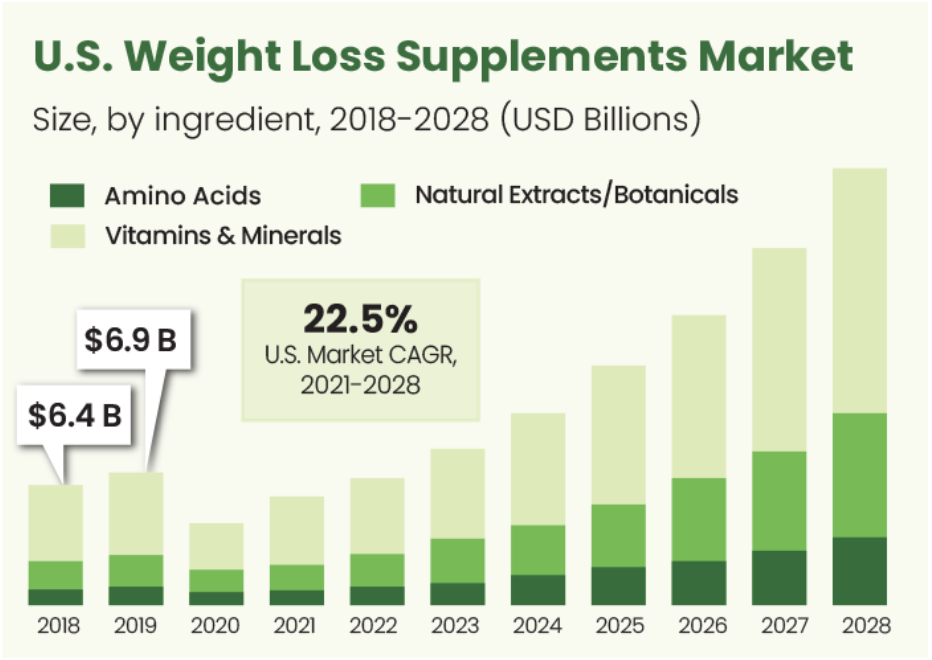
Source: Database Market Research

Weight Loss and Management

Weight loss and management continues to be a growing market with increasing obesity rates in developing countries. The World Health Organization (WHO) estimates 2.8 million individuals die every year as a result of obesity. This is coupled with 115+ million individuals who suffer from obesity-related diseases.

The U.S. weight loss supplement segment is projected to grow at 22.5% CAGR to 2028. The COVID lockdowns have resulted in a significant decline in dietary and lifestyle habits resulting in an accelerated market projection.

Research studies support efficacious weight loss supplements include gut health, proteins, and metabolic enhancement. An effective system of supplements produces better results than a single supplement. A system combining all elements of diet and lifestyle change produce better long-term results and improved health.



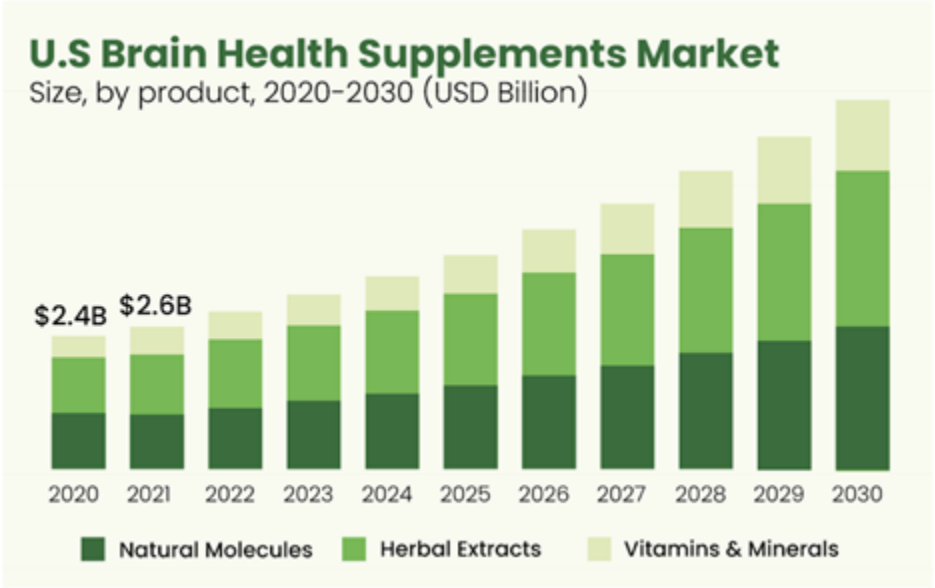
Source: grandviewresearch.com.

Brain Health

Mental health issues, which broadly includes the lack of focus and attention, anxiety, depression and loss of memory are generating the need for efficacious supplements in the global market.

According to the World Health Organization (WHO) there are 280 billion people suffering from depression. Anxiety disorder is reported to affect over 19% of the U.S. population.

These health issues are projected to grow the mental health supplement market to 13.3% CAGR to 2030.

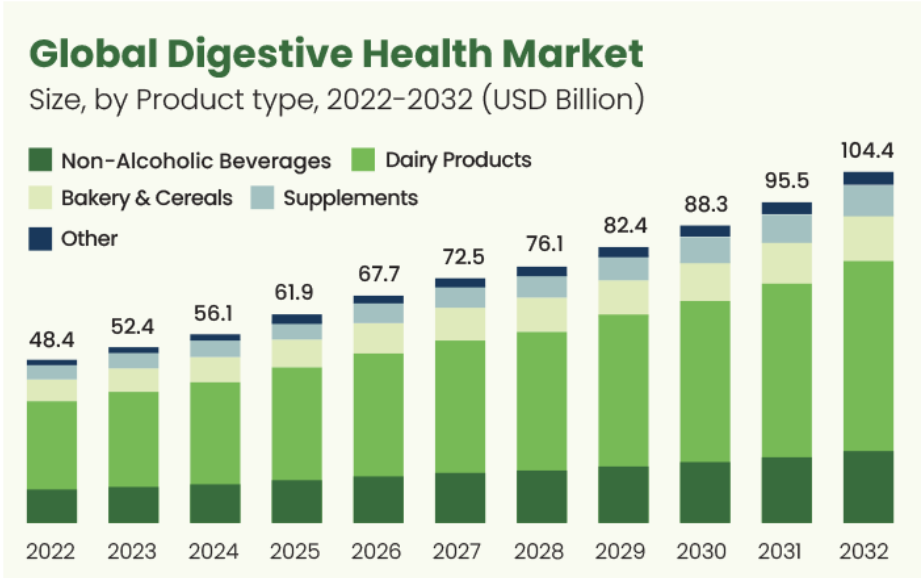


Source: Grand View Research, Brain Health Supplements Market Size, Share and Trends.

Digestive Health

Canada revealed over 13,000 deaths in 2020 were attributed to digestive disease. The global digestive health market is projected to grow 8.2% CAGR to 2032. North America holds the highest market share for digestive supplements at 34%.

A recent survey reported that 85% of global consumers have taken steps to improve their digestive health. Over 50% of these consumers prefer a food or drink format. A combination of pre- pro- and post-biotics are essential for an efficacious supplement.

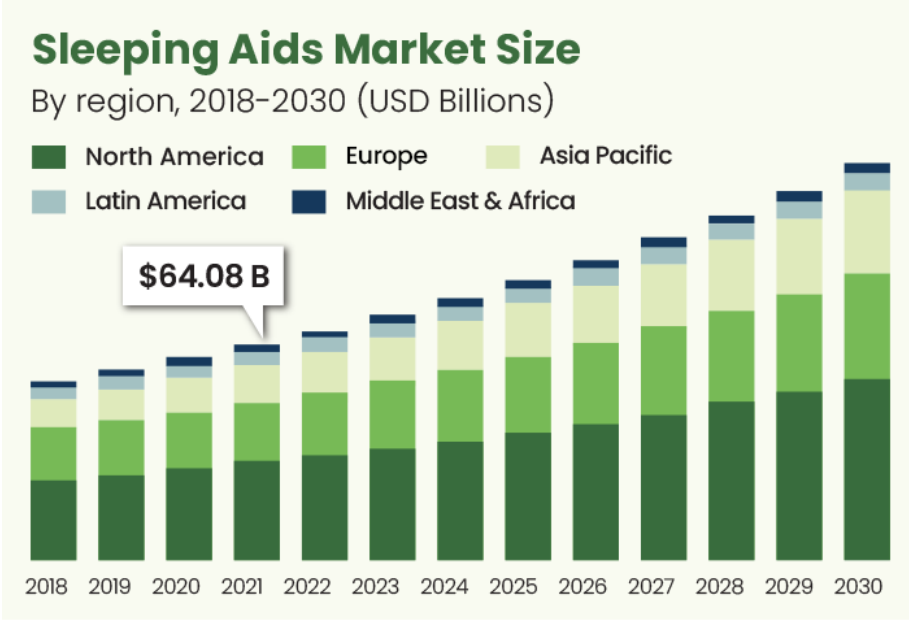


Source: Globe Newswire.

Sleep Aids

Research shows adults are getting less than 7 hours of sleep and poor sleep quality. **20% of Gen Z and Millennials purchase sleep support** compared to 10% of baby boomers.

Efficacious supplements that include Hormone support, Valerian root, Amino Acids, Herbal Extracts, e.g. lavendar, lemon balm, and hops, and Magnesium demonstrate supporting sleep are projected to grow at 7.2% CAGR to 2030, representing over 112 billion in sales.



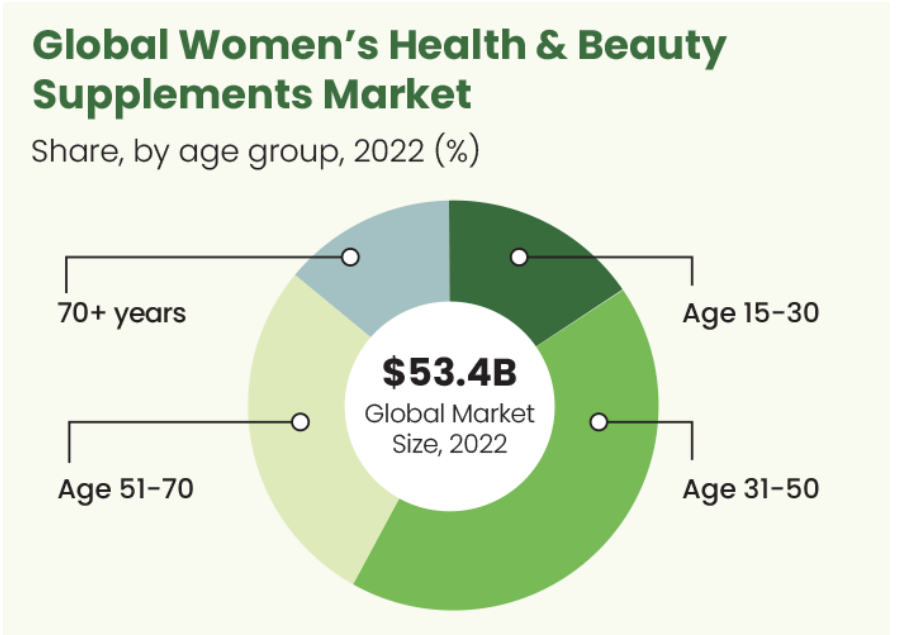
Source: Polaris Market Research Analysis.

Women's Health

This supplement market overall is projected to expand at a 5.1% CAGR. This includes hormonal aids, nutrition for fertility, menopause, and postnatal support.

Postmenopause support dominated this market with a 32.6% share. Supplements include calcium, minerals, and vitamins D, B6, & E, Omega-3, Collagen, and Cucumber Extract for bone density and strength.

Postnatal supplements have a lucrative forecast with globally 41.8% of pregnant women suffering from anemia. Supplements supporting anemia are omega-3 fatty acids, iron, vitamin D, folate, riboflavin, etc. The direct sales channels segment held the largest revenue share at 35.1%, likely due to consumer trust factor.



Source: grandviewresearch.com.

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