



Marketing Environment 2016

Trends & Outlook in the Nutritional Marketplace



*the***WrightGroup**[™]

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TABLE OF CONTENTS

| | |
|--|-----------|
| Economy | 3 |
| Demographics/ Psychographics | 5 |
| Millennials | 6 |
| Healthcare | 7 |
| Functional Foods | 8 |
| Functional Beverages | 9 |
| Nutrition Bars & Healthy Snacks | 10 |
| Supplement Industry | 11 |
| Cosmeceuticals | 12 |
| Animal Feed Markets | 13 |
| Pet Products | 13 |
| About the Wright Group | 14 |

ECONOMY

\$18.2 TR. IT HAS BEEN A VERY SLOW RECOVERY.

GDP GROWTH WAS ESTIMATED TO BE ~ +2.1% IN 2015 AND IS EXPECTED TO BE SLIGHTLY STRONGER THAN THIS IN 2016. THE U.S. GDP IS CURRENTLY

- The U.K. vote to leave the European Union (Brexit) will prove to have serious economic consequences in the U.K. itself as well as for their European trading partners. The British Pound hit a 31-year low and is anticipated to fall further to below \$1.15-1.20/£.
 - Scotland and Northern Ireland, which voted to remain part of the EU, have threatened to secede from the U.K. in order to remain part of the Union. It's a long shot, however.
 - Pervasive discontent with the established order and the uneven effects of globalization, especially among rural, older, lesser educated and lower income voters, was the driving force behind Brexit. It seems few voters really understood what the negative effects might be. The hot new term is "Regrexit".
 - U.S. companies generate about 70% of their earnings domestically, versus 58% in Japan and 45% across Europe. The U.K. sends 45% of their exports to EU countries and imports 53% from them. They have elected a massive problem to address.
 - Oil prices have recovered to ~\$46-7/bbl after falling to \$26 in March as OPEC regains some pricing power over more expensive producers such as "frackers".
 - Industry concentration has increased significantly in the U.S. economy. Companies have become more profitable as a result, but consumer choice, including those of small businesses, has been hurt in the process. Airlines, telephone, cable/internet, energy, hotel chains and financial services have been particularly egregious in raising prices. There has been \$10 TR in mergers since 2008, which has created this concentration. Consumers have seen no benefit from this, and small business is having trouble controlling expenses.
 - The U.S. move toward a \$15/hr minimum wage is a double-edged sword since it will affect employers' cost structure in the short run, but also enable more consumer spending in the longer run.
 - Global growth may approach 2.3% in 2016, according to a recent analysis by BASE. Other sources put it a bit higher at 2.6-3.0%. This is a very low rate and several European countries may experience recessions going into 2017.
 - Unemployment increased slightly to 4.9% in June from 4.7% in May due to more job seekers entering the work force.
 - This tightening in labor markets lends support for calls to increase minimum wages to \$15/hr. as it has become harder to attract entry level workers at \$7.25/hr.
 - U.S. household net worth is at \$86 TR, the highest level ever due in large part to some recovery in home values as well as increases in the equity markets so far in 2016, where major indexes hit record highs in July.
 - U.S. government debt is over \$19 TR and climbing. This is 104% of GDP.
 - The Dow Jones hit a record high above 18,500 and the S&P 500 crossed 2,165 for the first time. The tech-heavy NASDAQ is nearing an all-time high above 5,200 in July.
-
- Consumer spending has started to recover due to the estimated \$1,100 per family annual windfall from falling interest rates and energy prices. It rose 3.2% in Q1 along with a 4% rise in personal income.
 - Millennials remain strapped for cash due to student loan balances approaching \$1.2 TR, which limits their current consumption patterns. This debt is up 361% since 2003 and well in excess of credit card debt (\$659B, down 4.2%).
 - Inflation remains tame at ~1.0% in the U.S. which is well below the Fed's target rate of 2.0%. Capacity utilization is running at 74.9% which leaves plenty of slack in the system.
 - Although the Fed wants to raise interest rates for the second time in 2016, it is hard to see how they can do so in the wake of Brexit and continuing sluggish growth in the U.S. Central bank interest rates have actually gone negative in Japan, Germany and other European countries.
 - Better feeding margins due to declining feed costs, rising meat consumption in the developing world and resultant higher prices have put demand pressure on certain vitamins, amino acids and other nutrients. Animal feed represents the largest share of demand for most nutrients. 90% in some cases.



- Chinese GDP growth will slow to 6.6% in 2016 according to the IMF, the lowest rate in 26 years. The Chinese economy grew at an average of 10% annually for 33 years prior to this year. No other country in history has ever accomplished this.
- The Chinese yuan hit a recent high of 6.04/\$ but has since settled closer to 6.69/\$. Chinese exports have been hurt as a result, and has added to price pressures on vitamins and other nutraceutical ingredients.
- Chinese wages have increased 6-fold since 1997, about 10 times more than in the U.S. China is not as cheap as a manufacturing base in comparison to India and other Asian and African countries.
- China is also getting more environmentally aware as its economy matures and its air and water quality deteriorate, which has caused some supply disruptions due to plant shutdowns. Thiamine, calpan and biotin have been most adversely affected lately, but any chemical plant is subject to government action to limit air pollution and waste effluents.
- The upcoming G-20 Summit to be held in Hangzhou, Zhejiang province this September may cause some disruption to vitamin producers in the area as the government needs to clean up air and water prior to this highly visible event. This may be similar to what happened prior to the 2008 Beijing Olympics.
- The U.S. Fed Funds rate target remains at 0.25-0.50% and may stay low through 2016. The current yield (7/5/16) on the 10-Year Treasury note is around 1.37%, a historic low.
- The question of wealth distribution has been in the news and has become an explosive political issue in the upcoming presidential election. The top 1% of households controls 35% of U.S. wealth, more than the bottom 90% combined. The top 5% of earners drive 38% of domestic consumption, up from 28% in 2005. It is hard to generate much true economic growth this way with so many consumers under financial constraints.

**U.S. government
debt is over
\$19 Trillion and
climbing.**

**This is 104%
of GDP.**

DEMOGRAPHICS / PSYCHOGRAPHICS

THE U.N. PROJECTS GLOBAL POPULATION TO BE 8.5 B BY 2030, 9.7 B BY 2050 AND 11.2 B BY 2100. HALF OF THIS GROWTH WILL BE IN AFRICA, AS CHINA & INDIA PEAK OUT AT 1.4B (2028) & 1.75B (2068) RESPECTIVELY.

- The global median age, currently at 30, will increase to 36 in 2050 and 42 in 2100. This aging of the population will have major impact on our food and health care systems globally. Also, there is the question of who will pay for it all?
- By 2019, there will be more people 65+ than those under 5 years of age for the first time ever. If current trends continue, by 2050, there will be 15.6% of the population over 65, and around 7.2% under 5.
- As arable land and water resources become harder to find, it may be necessary to reconsider the current bias against GMO crops, ag chemicals and other technological solutions.
- FAO is predicting a 70% increase in food demand by 2050, meanwhile, about 40% of food produced is wasted for various reasons.
- The first Baby Boomer hit 70 in 2016 and 10,000 more per day will do so over the course of the next 18 years. Boomers are 26% of the U.S. population with \$2.1 TR in spending power.
- There are an estimated 75,000 U.S. citizens over the age of 100. It is believed by some experts that the first person to live to 150 years old may be alive today, probably a female in China. This aging phenomenon and the growth of the

very old population will continue to be a major driver of the health care and nutrition meta-industries. Quality of life will remain a major issue as will the means to pay for it.

- The change to a 2-child policy in China will have dramatic results longer term for domestic spending, especially on infant formula and baby foods, which are slated to grow at 10-15%.
- The sheer volume of health related information available on the internet and the ubiquity of connected devices is making health claims less necessary than in the past.
- Consumers remain bi-polar in their preferences:
 - Real sugar vs. artificial sweeteners.
 - Organic, non-GMO, fair trade, gluten-free vs. low price, high salt, high fat, etc.
 - Taste, convenience, shelf life and portability remain important.
 - Clean label, locally sourced and sustainability is growing in importance.
 - May be a conflict between absence of preservatives, food safety issues and nutritional completeness.





MILLENNIALS

MILLENNIALS ARE NOW THE LARGEST POPULATION SEGMENT, BORN 1980-1997 AND AGED 20-37 IN 2016, ARE 76 MM

STRONG (25% OF U.S. POPULATION), SLIGHTLY LARGER THAN THE BABY BOOMERS AT 23%. ABOUT 22 MM ARE NOW PARENTS WITH 9,000 CHILDREN BORN EVERY DAY TO THIS GROUP.

- They are where Baby Boomers were in 1983 and are traditional in many ways:
 - 73% are employed
 - 28% are married
 - 37% own a home
 - 38% are parents
- Millennials are not as focused on disease prevention, but on performance and good nutrition to support their current lifestyles and show a definite preference for foods, beverages and alternate dosage forms over pills and capsules.
- Many continue to suffer from high unemployment and huge college debt. Moving back with Mom and Dad has contributed to a societal trend called “extended adolescence” or less kindly, “permachildren”.
- More conscious of “green” products, locally produced foods, artisanal products, organics and fair trade and are willing to pay a premium for it.
- Millennials will spend \$1.4 TR and \$300 B/yr on consumer packaged goods by 2020. They also stand to inherit \$20-30 TR from their Boomer parents. Every company is targeting them while trying to figure them out!
- Their purchasing behavior is somewhat bi-polar. They are very loyal to brands sharing their values, but are also prone to use mass merchandisers and try private labels as well in some categories. They tend to trade up for certain categories and down for others, whereas Baby Boomers and other older generations are more brand-loyal and predictable.
- According to IRI, Millennials accounted for 89% of the growth in snack foods in 2014. They increasingly view snacks as mini-meals and consume an average of 3.05 per day, twice the rate of Baby Boomers. They are willing to pay more for quality and 70% demand healthy snacks.
- Their dollar share of consumer packaged goods sales are slated to increase from 17% in 2014 to 29% by 2020, according to IRI.
- Online, social and mobile technologies are their native languages, unlike the Boomers and even Gen Xers. They must be reached and better yet, engaged, in new and innovative ways. Conversation, honesty, transparency and story-telling, not persuasion per se. The creation of a “sense of community” around a company, product or service has become much more important in targeting.

HEALTHCARE

U.S. HEALTH CARE EXPENDITURES IN 2015 ARE ESTIMATED TO BE ~\$3.2 TR, WHICH IS ~17.6% OF GDP. GROWTH IS ESTIMATED AT 5.5% IN 2015 VS. 5.3% IN 2014. HIGHER INFLATION IN MEDICAL COSTS, SHARPLY HIGHER DRUG PRICES, THE AGING OF THE POPULATION AND GREATLY EXPANDED COVERAGE UNDER THE AFFORDABLE CARE ACT ALL CONTRIBUTED TO THIS INCREASE.

- Total U.S. drug spending hit \$425 B in 2015, up 12.2% from 2014. It is now a \$1 TR industry on a global basis. Out of pocket spending on alternative treatments was \$30.2 B.
- Heart disease is still the largest killer, but growth in its incidence has slowed as a result of new medications, reduced levels of smoking and lifestyle improvements. Obesity and diabetes remain very serious problems in all developed countries.
- Cancer has been given more attention and resources and breast cancer prevention, in particular, has become a quasi-political cause. V.P. Joe Biden is now our “Cancer Czar”.
- The vast majority of all healthcare dollars go to treating longer term chronic illnesses, which will certainly increase as the population ages. These conditions now account for 63% of all deaths. Only 3% of health care dollars is spent on disease prevention. Something has to change!
- High deductibles/co-pays, higher generic drug costs, higher insurance premiums and greater uncertainty under the Affordable Care Act will encourage consumers to focus more on health maintenance in order to stay out of the system to the extent possible.
- FDA, FTC, States Attorneys General and other government regulators such as EFSA in Europe remain negative and even antagonistic about the roles of functional foods and dietary supplements in the diet, even where science is compelling if not conclusive.
- Former FDA official, Joshua Sharfstein, has proposed a new regulatory paradigm based on “access with safety”, rather than “cost vs. benefit”, which is how drugs are regulated.
- The U.S. healthcare system is very good at treating acute medical conditions, but pretty weak in dealing with chronic conditions, prevention and prediction.

**“We in the dietary
supplement and functional
food industries are
creating more aware and
proactive healthcare
consumers which will be of
benefit longer term.”**

FUNCTIONAL FOODS

GROWING 40% FASTER DESPITE 80% PRODUCT FAILURE RATES. CHANNELS ARE BECOMING MORE MAINSTREAM AND ALMOST ALL FOOD HAS SOME “FUNCTIONAL” ELEMENT.

ACCORDING TO NBJ, U.S. SALES OF FUNCTIONAL FOODS GREW 7.7% TO \$55.1 B IN 2015. WE ANTICIPATE SIMILAR GROWTH IN 2016 TO ~\$60 B. BEVERAGES ARE 63% OF THIS TOTAL. THIS SECTOR IS NOW 42% LARGER THAN DIETARY SUPPLEMENTS AND

- Globally, the functional food/beverage market is expected to hit \$180 B by 2017. It largely depends depending on what is counted as “functional”. Regulatory pressure in the EU has tempered growth a bit.
- Foods positioned as functional average 25% profit margins, much better than conventional foods. They are also growing faster as health messages resonate with their target consumers across demographic groups.
- On average, consumers are using functional products to treat 3.4 health conditions and to prevent 6.2 in addition. (Hartman Group, 2015).
- More and more is being written about the microbiome and its impact on acute as well as chronic diseases. This use of “big data” has the potential to create a whole new industry of personalized nutrition. Nestle and Unilever are actively involved in this initiative. Probiotics, prebiotics and other fibers stand to be major players going forward.
- Organic products achieved global revenues of \$80 B and U.S. revenues of \$43.3 B in 2015 (\$39.3 B was food); non-GMO and gluten-free remain major topics among functional food consumers which demonstrates how emotional this issue has become, even where science shows little if any benefit for most people.
- 15.7% of new products introduced in 2015 were non-GMO and 13.5% were organic. Unlike the organic market, there is no universally accepted standard for non-GMO, though the Non-GMO Project Verified program has been gaining traction. Others are NSF International’s Non-GMO True North and USDA’s Process Verified Program.
- The Senate recently passed a national standard for GMO labelling, but it is getting resistance from legislators, regulators and consumers demanding more transparency.
- Trade-offs will have to be made between non-GMO, organic positioning and nutritional completeness. Many vitamins and nutrients are made by fermentation or extraction processes from GMO crops such as soy include amino acids, ascorbic acid, riboflavin, B-12, Q-10, beta-carotene, lycopene, natural vitamin E.
- The clean label movement may face a conflict between preservative usage and food safety, unless natural substitutes can fill the gaps.
- The gluten-free market is expected to reach \$15 B in 2015 and seems to be a trend with staying power, although some products claiming to be gluten-free do not naturally pose a risk of containing it. The “real” gluten-free market may be closer to \$9B. It is an easy health claim to make in a regulatory environment where claims are becoming more difficult. It is believed that celiacs only represent 7% of the consumption of gluten-free foods.
- According to Euromonitor, between 2011-5 there has been a 60% increase in global food and beverage launches using a vegetarian claim. There is also an emerging market of “flexitarians” who occasionally consume meat. These consumers are very viable targets for fortified foods. Folic, B12 and Q-10 are particularly important.
- Vegetarians, in particular, are consuming protein-based sports nutrition products as they seek to optimize nutrition. Many Millennials consume energy drinks and protein bars at breakfast rather than coffee, tea or breakfast cereals.
- As fluid milk consumption drops, the market for vegetable-based substitutes booms. Soy, almond, cashew milks and other products account for 12% of the market are growing at about 15% on average.
- As consumers age, they tend to taste less, eat less and absorb nutrients less efficiently. Since they already take many medications, it makes sense to consume more nutrient-dense functional foods, meal replacements and beverages. Single serve portions are also growing in popularity.
- The top 5 health claims made in foods for the elderly are:
 - Health optimization
 - Digestive health
 - Energy and alertness
 - Cardiovascular health
 - Immunity

FUNCTIONAL BEVERAGES

CARBONATED SOFT DRINKS, FRUIT JUICES AND FLUID MILK CONTINUE TO LOSE SHARE TO JUST ABOUT EVERY OTHER FORM OF BEVERAGE AND COULD DECLINE BY 15-20% OVERALL BY 2020. DIET DRINKS ARE ESPECIALLY VULNERABLE.

- U.S functional beverage sales were ~\$35 B in 2015 and may reach \$40 B by 2017. Line extensions by the major players makes it increasingly difficult to find niches of sufficient size. Basically, everything has become a niche:
 - The global functional water market has grown to \$12 B.
 - Energy drinks are anticipated to reach 26.6 B by 2019.
 - Energy shots have fallen to under \$1.5 B.
- The combined global sports and energy drink market may hit \$64 B by 2019. Sports nutrition products overall have migrated out of the gym and into the mainstream. They are not just for elite athletes anymore. 36% of U.S. adults consume sports drinks.
- Euromonitor claims that worldwide sales of functional foods and beverages grew 25% 2008-13 to \$268 B. It should be noted that market estimates and product boundaries vary widely between analysts, but by all accounts it is a massive business far in excess of dietary supplements
- Relaxation drinks have become an interesting niche, with revenues of about \$165 MM in 2015.
- Functional beverages, in particular, make a lot of sense in addressing an aging population. Flavoring and sweetening systems can mask the taste of problematic ingredients. They are also more convenient and easier to consume than pills

“WORLDWIDE SALES OF FUNCTIONAL FOODS AND BEVERAGES GREW 25% 2008-13 TO \$268 B... BY ALL ACCOUNTS IT IS A MASSIVE BUSINESS FAR IN EXCESS OF DIETARY SUPPLEMENTS”



NUTRITION BARS & HEALTHY SNACKS

NUTRITIONAL BARS ARE NOW A \$6.8B CATEGORY GROWING TO \$8 B BY 2019. THERE ARE AN ESTIMATED 7,000 BAR PRODUCTS AVAILABLE IN THE U.S MARKET. MILLENIALS ARE DRIVING MUCH OF THIS TREND. THEY ARE 40% MORE LIKELY THAN BABY BOOMERS TO SNACK MULTIPLE TIMES PER DAY.

- About 70% of consumers purchase bars, and healthiness is the major positioning, especially for high protein products. Between 2009-14, the number of adults using bars as snacks, breakfast or mini-meals has increased by 11%.
- More than 50% of consumers now eat/graze periodically over a 15- hour span of time. Bars are very useful and convenient for them since there is a bar for every “day-part”, from breakfast through lunch to a late night snack, all with portion control and health benefits.
- The number one consumers of nutrition bars are adults aged 18-34. Women over 55 are the second largest segment.
- Differentiation becomes more important as markets become mature and saturated. We are seeing a variety of spicy, savory, cheesy, ethnic flavors and other new forms in addition to more traditional flavors. Customization is also a new trend as demonstrated by You Bar and Fit Joy.
- In 2015, it is estimated that virtually all new product introductions in this category had a health and wellness positioning.
- Potential differentiation bases for bars include:
 - Gender
 - Age
 - Condition specific
 - Non-GMO, organic, fair trade
 - Fortified, nutritionally dense
 - Natural, clean label
 - Consumption occasion
 - Gluten-free
 - Sugar-free
 - High protein
 - Energy enhancing, recovery promoting
- Convenience and health is a powerful dual positioning for both Baby Boomers and Millenials:
 - Boomers look for condition specificity and tend to be more conservative on flavors.
 - Millenials look for wholesomeness, novel flavors and textures and not necessarily specific ingredients.
- KIND Bar has regained the ability to use the word “healthy” on their labels following a dispute with the NY Attorneys General office.
- Power Bar has been repositioned as a product for general use for all consumers with an active lifestyle as opposed to one for only elite athletes. This move to the mainstream has impacted most sports nutrition products as well.
- In marketing snacks, guilt reduction is a key objective. Nutritionally complete products like bars would seem to have a big advantage here.
- Nielsen reports that 45% of consumers see bars as mini-meals, at least occasionally. As formal sit-down dining becomes less the norm, products such as bars, shakes, yogurt, jerky, etc. takes its place.
- Breakfast is extremely important as a consumption occasion, but nutrition bars have the advantage of serving any “day-part” unlike some foods and snacks.



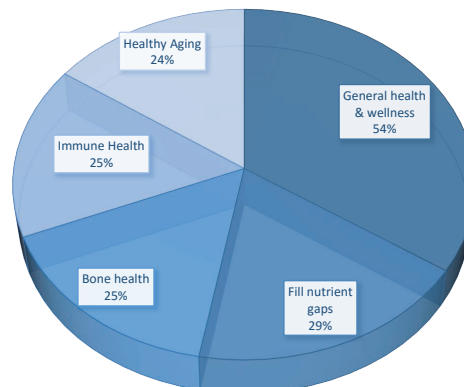
SUPPLEMENT INDUSTRY

ACCORDING TO NBJ, THE U.S. DIETARY SUPPLEMENT INDUSTRY GREW 5.9% IN 2015 TO \$38.8 B, UP FROM 5.1% IN 2014, BUT LOWER THAN THE 7% PACE OF RECENT YEARS. THIS GROWTH WAS ACHIEVED IN THE FACE OF MORE VIGOROUS REGULATORY SCRUTINY.

- Herbs and botanicals rose 7.5%, sports nutrition was up 8.4%, probiotics increased 17.9% and vitamin D was up 8.3%.
- Fish oil dropped 0.5% but is showing signs of recovery in 2016.
- The composition of the dietary supplement market is:
 - Vitamins/minerals **38%**
 - Herbs/botanicals **18%**
 - Sports nutrition **14%**
 - Meal replacements **12%**
 - Specialties **18%**
- A recent CRN report estimates that the supplement industry contributes \$122 B in economic benefits, employs over 750,000 people and pays \$34B in taxes. They claim that there are 962 manufacturing facilities making products for this industry.
- CRN has also launched a product registry initiative overseen by Underwriter's Laboratories (UL®) in order to document quality and provide more transparency to consumers as well as regulatory authorities. UL® has a ton of brand equity connected to safety.
- According to the market research group, TABS, Walmart alone will sell about \$1.7 B in dietary supplements in 2016, almost as much as the entire online sales channel. They are starting to source finished products directly from China.



- CRN reports in a recent survey that the **main rationales for consumers taking supplements are as follows:**



- New exotic viruses like Zika, West Nile and drug resistant bacteria like MRSA have focused new attention on immunity. Probiotics, prebiotics and Vitamin C have benefited from this trend.
- It is estimated that 68% of the U.S. adult population takes supplements regularly, 77% if occasional/seasonal users are counted. Consumers 55 and up are higher at 75%. These numbers have been consistent for four years.
- The Centers for Disease Control claims that the typical Western diet leaves people overfed and undernourished. Supplements could be an important part of the solution. They estimate that large segments of the population are deficient in vitamin D (90 MM), B6 (30 MM), B12 (18 MM) and vitamin C (16 MM).
- The growth of vegetarian, vegan and flexitarian diets also opens up opportunities for dietary supplementation.
- There are some signs that “pill fatigue” is exerting a negative effect on supplements. The expanding array of condition-specific products, largely taken as single entity dosage forms, require a consumer to add one more pill to their already full regimen. Many are taking drugs in addition to supplements.
- Gummies and other alternative formats have helped somewhat, but where a therapeutic dose is high, it is hard to get away from the more traditional product forms.

SUPPLEMENT INDUSTRY (cont)

- The Chinese are showing more interest in competing in the finished product space with recent acquisitions of IVC, Perrigo, Vitatech and Doctor's Best.
- There is some evidence that the print media has been swinging negative lately because it has been "hollowed out". Ad revenues have crashed, smaller staffs of reporters are spread thin and there is little expertise in house who understand what supplements are about, so they go to the same "experts" for comment when a story arises. These experts tend to be traditionalists who have a largely negative world view of anything considered "alternative".
- Negative stories get picked up by TV, radio and internet-based media and spread like wildfire. Negative info in general is seen as newsworthy, positive news is usually not. (Dog bites man vs, man bites dog) Fact checking is cursory at best and manufacturers' information, if solicited at all, is largely discounted as biased.
- In spite of all this, the industry continues to grow and "experts" are being ignored in favor of family members, TV doctors, Oprah, friends, neighbors and social media networks. Still, it would be nice to get a bit more respect!

Dynamics Driving the Supplement Industry

Demand Pull

- Aging, demographics
- Health care costs and shrinking benefits
- Positive science
- Drug side effects
- Disposable income expansion

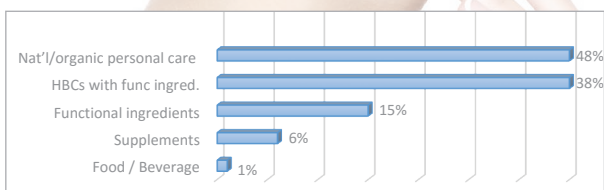
Supply Push

- New ingredients
- Rising ad expenditures
- Bigger players
- Profitable for channel members
- Shelf efficiency (takes up little space in shelf)
- Science investments
- Social media, word of mouth
- New dosage forms
- New channels

COSMECEUTICALS

NUTRICOSMETICS OR "BEAUTY FROM WITHIN" SUPPLEMENTS ARE INGESTED; COSMECEUTICALS ARE APPLIED TOPICALLY.

- Euromonitor estimates the total global market for ingestibles at \$3.3 B in 2015. Asia/Pacific is the most developed market, with Europe second. North America is relatively undeveloped but may have the best growth potential.
- The primary market driver is women over 35, mostly concerned with skin health, hair, nails and overall anti-aging benefits, Sun protection and skin elasticity are major concerns
- NBJ more broadly estimates the overall "Nutri-Beauty" market to be ~\$19B growing at 8% per year. Its components are:



- NBJ puts the U.S. ingestibles market at \$1.4 B in 2015, up 8.5% from the previous year. \$730MM is supplements for hair, skin and nails and \$360 are considered anti-aging supplements.

- Expect growth to \$1.7B by 2017 in the U.S., but Japan is larger by comparison at ~\$2.3B which represents 11.3% of their dietary supplement market vs. 3.6% in the U.S.
- Overall global demand will be \$8.5B by 2015, according to Freedonia study. Two-thirds is skin care.
- Main products are antioxidants, vitamin E, Vitamin C derivatives, panthenol, lycopene, phytoene, phytofluene, collagen, MSM, coenzyme Q-10, alpha lipoic acid and hyaluronic acid salts.
- Main market factors are L'Oreal, NuSkin, and Swisse Wellness.
- Air pollution and other concerns are driving demand in China and Japan especially.
- A search for more natural forms of beauty enhancements other than chemical peels, dermabrasion and Botox is largely driving this market, though efficacy is a big question which is limiting growth.

ANIMAL FEED MARKETS

THE WRIGHT GROUP DOES NOT CURRENTLY PARTICIPATE IN THIS MARKET, BUT IT HAS IMPLICATIONS FOR VITAMIN SUPPLY AND PRICING.

- Meat consumption is rising as a function of worldwide economic development. China in particular is rapidly growing and is the fastest growing beef market in the world.
- China is moving to more vertically integrated production in swine and poultry which will drive domestic consumption of vitamins, amino acids and other nutrients sky high in the years to come
- Competition for corn as a biofuel has lessened as world energy supplies and new technologies make ethanol less viable economically.
- As a result, feed prices have come down as the prices of corn and soy have declined in recent months, opening up “feeding margins” for producers of hogs, poultry, fish and beef.
- On the aquaculture front, FAO predicts that 62% of fish will come from farms by 2030. It is still the major protein source in Asian diets. China will represent 38% of total fish consumption by 2030. Asia overall will be 70%.
- This resurgence in feed demand has begun to cause pricing increases and supply constraints for nutrients even in the human application markets. More than 70% of vitamins, by volume, go into feed applications. In the cases of Vitamin A, B2, biotin and a few others, it is even higher.



PET PRODUCTS

GLOBAL PET FOOD SALES ROSE 4.4% TO HIT \$70B IN 2015 WITH THE HIGHEST GROWTH OF 13% IN NATURAL/ORGANIC PRODUCTS. U.S. SALES ARE ESTIMATED AT \$24 B.

- Global pet food sales rose 4.4% to hit \$70B in 2015 with the highest growth of 13% in natural/organic products. U.S. sales are estimated at \$24 B.
- The biggest players are Mars, Nestle, Del Monte and Colgate (Hills Science) with a combined market share of 75%. New players like Blue Buffalo, Nutro, Ainsworth, Natural Balance, Wellpet, Honest Kitchen and Tuffy's have emerged in the premium segment.
- The growth in condition-specific and age-specific foods for pets mirrors the functional foods business in the U.S.
- The pet products market overall was \$58.5B depending on what is being measured, but the trend toward humanization of pets continues unabated.
- There are even gluten-free pet foods on the market and clean label, sustainability and non-GMO are similar in importance to human foods. Ingredient labels are nearly indistinguishable from human grade products.
- We estimate the pet supplement market at \$4.4B+ in 2015, with growth of 10%. Joint health supplements represent 43% of the total. Functional treats are about half of this total.
- Researchers at George Mason University estimate that the human/pet bond reduces stress, encourages exercise and may save almost \$12 B in healthcare costs.
- There are an estimated 78 MM dogs and 86 MM cats in America and their owners are now referred to as “Pet Parents”. In Japan, the ratio of pets to babies is 10:1. Our furry friends have really come a long way.
- The regulatory environment for pet foods is actually more complex than for human products. Health claims are not covered under DSHEA, and state officials from AAFCO (American Association of Feed Control Officials) have major influence over what is approved on a state-by-state basis.

About The Wright Group

During the past 50 years, advances in technology and nutrition science have revolutionized the way products are developed and the methods in which they are manufactured. Despite these countless advances, one constant has remained the same, our commitment to delivering only the highest quality products in the industry.

Headquartered in Crowley, Louisiana USA, The Wright Group is an industry leader in the development of custom nutrient premixes, the microencapsulation of vitamins, minerals and omega-3, as well as, a complete line of direct compressible granulations.

One of The Wright Group's specialties is the hands-on development, formulation and manufacturing of custom nutritional blends or premixes. Our custom SuperBlend® premixes begin as a series of nutritional delivery targets intended to enrich a variety of product applications; including breakfast cereals, functional foods, dairy and non-dairy-based meal replacement beverages, nutrition bars, sports nutrition products, infant formulas and daily multivitamin supplements.

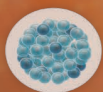
The Wright Group's value-added coating

technology delivers superior performance and stability of essential nutrients for a wide range of multi-functional ingredients. In addition to its innovative design, all SuperCoat® nutrients are rigorously tested throughout the entire production process, and are quality checked to ensure purity, potency and performance.

SuperTab® direct compression granulations combine the physical performance requirements sought by formulators with cost effective solutions sought by product managers. SuperTab® granulations deliver essential nutrients in uniform, free-flowing, granular powders ideal for high speed tableting processes.

Wright operates out of GFSI and FSSC22000 certified facilities. All of The Wright Group's nutrient solutions are thoroughly tested by our in-house laboratory to insure potency and performance, and a Certificate of Analysis accompanies all orders. In addition, a variety of testing options, including microbial analysis, are available.

The Wright Group combines quality, innovation service and value to make sure your product is the best it can be.



SUPERCOAT®
Microencapsulated Nutrients



FUELING
YOUR
PRODUCTS
ENHANCING
YOUR
BOTTOMLINE



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