

Cosmeceuticals: Current Trends and Market Analysis

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The desire to maintain a youthful image combined with an emerging global market with disposable income has driven the development of many new industries. The cosmeceutical industry is based on the development and marketing of products that lie between cosmetics and pharmaceuticals. Today, there are over 400 suppliers and manufacturers of cosmeceutical products, and the industry is estimated to grow by 7.4% by 2012. Although a number of products advertise predictable outcomes, the industry is largely unregulated and any consumers of cosmeceutical products should consult a dermatologist prior to use. This review will provide a snapshot of the current trends of this industry and provide an analysis of this multi-billion dollar market.

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Modern society is increasingly integrated across national borders, and the global economy has augmented consumer access and individual buying power exponentially. In addition, advances in medicine have led to a trend of increasing life expectancy.¹ The combination of these factors has led to the establishment and growth of the cosmeceutical market, which includes products designed to reduce the visible signs of aging. Dr Albert Kligman originally coined the term cosmeceutical, describing a hybrid category of products found on the spectrum between drugs and cosmetics that exert a pharmaceutical therapeutic benefit but not necessarily a biological therapeutic benefit.¹ Cosmeceuticals have become the fastest-growing segment of the personal care industry.

Consumers and dermatologists alike can be overwhelmed with the sheer number of cosmeceutical products available. The multitudes of products are not strictly regulated, and consumers are often exposed to product information that is not scientifically sound or backed by rigorous clinical studies. In addition, products that are plant-derived and marketed as “all natural” aging cures may poten-

tially mislead consumers into a false sense of security regarding product safety.¹ Although certain cosmeceuticals may not deliver the effects they claim, there may be benefits because of their emollient action, although it is difficult to discern whether these effects can be attributed to the active ingredient or the vehicle.² Dermatologists should be aware of the theoretic actions of these products to guide patients to the best options and protect them from costly, ineffective, or potentially harmful purchases.

Cosmeceuticals

Although the U.S. Food and Drug Administration (FDA) does not recognize the term “cosmeceutical,” the cosmetic industry uses this word to refer to cosmetic products that have medicinal or drug-like benefits. By comparison, pharmaceuticals are agents intended to alter, change, or protect skin from abnormal or pathologic conditions.³ Examples of popular cosmeceuticals include moisturizers, retinoids, antioxidants, and depigmentation agents. Like cosmetics, cosmeceuticals are applied topically but differ in that they contain potent ingredients that can influence the biological function of the skin and deliver nutrients to promote healthy skin. In cosmetic surgery, the use of cosmeceutical products during the postoperative period is also gaining favor to ensure optimal outcomes and patient satisfaction, especially of the use of cleansers, moisturizers, and camouflaging cosmetics.⁴

Recent trends in cosmeceutical development include those that address skin protection from radiation and oxidant damage, with a focus on nonirritating ingredients to improve the appear-

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Table 1 Cosmeceutical Product & Chemical Demand (\$M)

	2002	2007	2012	2017	% Annual Growth	
					2002–2007	2007–2012
Cosmeceutical product demand	3,558	5,760	8,240	11,520	10.1	7.4
Skin care	2,325	3,550	5,150	7,350	8.8	7.7
- Age-defying products	1,000	1,750	2,780	4,270	11.8	9.7
- Other skin care	1,325	1,800	2,370	3,080	6.3	5.7
Hair care	540	660	795	950	4.1	3.8
Injectables	205	615	990	1,430	24.6	10
Lip care	205	350	500	700	11.3	7.4
Tooth whitening	103	225	280	330	16.9	4.5
Other	180	360	525	760	14.9	7.8

Source: The Freedonia Group.

ance of skin.³ Topical retinoid products are the most important drug class to reverse cutaneous aging⁵ with clinical efficacy proven in a number of trials that included histologic evaluation.⁶ Retinoids act through retinol and retinoic acid binding sites to regulate growth and differentiation, inhibit tumor promotion, decrease inflammation, and enhance the immune system.⁷ Vitamin A is the most common naturally occurring retinoid, and acts by stabilizing the oxygen radicals that are created after skin exposure to ultraviolet light.⁴

Transretinoic acid, or tretinoin, is the primary retinoid used for skin enhancement and has both dermal and epidermal effects.⁸ Tretinoin has been found to improve fine rhytides, diminish roughness, reverse actinic damage, and lighten lentiginos.⁹ A subset of patients experience skin irritation with prescribed retinoids, and here over-the-counter retinol may provide a better tolerated option.¹

In addition to retinoids, other antioxidants have gained traction in the market, including alpha lipoic acid, idebenone, and niacinamide. As a class, antioxidants have emerged as the largest general category of active cosmeceutical ingredients incorporated into both topical and ingestible formulations and are expected to maintain this position for the foreseeable future. As with retinoids, antioxidants function by preventing free radical species from damaging cellular proteins or genetic material, which has been demonstrated to contribute significantly to the visible effects of skin aging.⁴ Other active compounds, such as botanicals, enzymes, hyaluronic acid, amino acids, and peptides, also offer favorable opportunities in a variety of cosmeceutical products.

Cosmeceutical development has also benefited from the growth of other industries, such as nanotechnology. Cosmetic industries rank high among the nanotechnology patent holders in the United States. The French firm L'Oréal devotes approximately US\$600 million of its annual US\$17 billion revenues to research and is the industry leader on nanopatents.¹⁰

Manufacturers

Because of their unique position as neither cosmetics nor pharmaceuticals, cosmeceuticals are not regulated by the FDA. Advertising claims made by manufacturers of cosmeceutical products are investigated for accuracy by the Federal Trade

Commission (FTC), whose function is to examine any advertised claims of pharmaceutical properties or effects for scientific validity. Any claims made by manufacturers about their products having an effect on the structure or function of the human body must be substantiated by scientific evidence to avoid investigations by the FTC.

There are approximately 400 cosmeceutical manufacturers, including companies that supply the cosmeceutical chemicals and/or manufacture the products in the U.S. market. The largest companies in the industry for finished products are Procter & Gamble, Johnson & Johnson, L'Oréal, Estée Lauder, Avon and Allergan, which together represent nearly one-half of the U.S. market. Key doctor brands include StriVectin, N.V. Perricone, Murad, DDF, Hylexin, MD Skincare, Dr Brandt, Erno Laszlo, Peter Thomas Roth, and Rodan + Fields, among others.

Croda International Plc, based in the United Kingdom, and Allergan, in Irvine, CA, are 2 of the leading suppliers in the cosmeceutical industry. Croda recorded US\$1.016 billion in sales in 2006, primarily from sales of oleochemicals—derived from natural oils—used in personal care products, household items, and the plastics industry. That same year, Allergan had sales of US\$3.1 billion, primarily through the sale of botulinum toxin type A (Botox Cosmetic).

Skincare cosmeceuticals account for approximately 80% of the total U.S. and European cosmeceutical market (Table 1). In 2011, the cosmeceutical market should resume growth rates close to those experienced between 2004 and 2007. U.S. demand for cosmeceuticals is projected to increase by 7.4% in 2012 and to continue to increase in the subsequent years (Figs. 1 and 2). However, there is growing competition from the mass-market chains, and this growth may also be affected negatively by stricter legislation on claims and ingredients combined with a consumer mindset of cautious spending.

Regarding legislation, lawmakers in the United States began investigating potential changes to the definition of the terms “drug” and “cosmetic” as described in the Food, Drug and Cosmetic Act in the late 1990s. Stricter legislation would attempt to further clarify the distinction between pharmaceuticals and cosmetics. A report entitled “Classification and Regulation of Cosmetics and Drugs: A

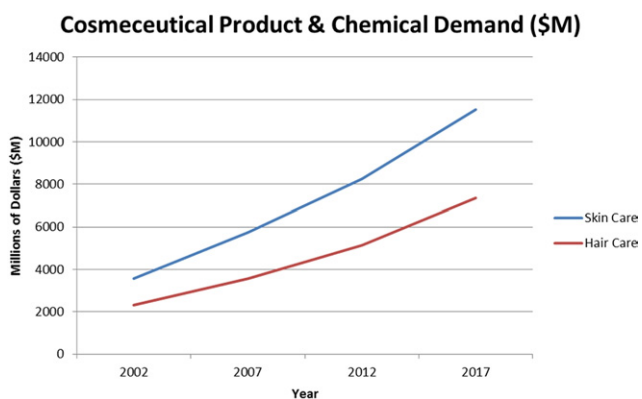


Figure 1 Cosmeceutical product and chemical demand (\$M) for hair and skin care. Adapted from data published by the Freedonia Group.

Legal Overview and Alternatives for Legislative Change” included provisions for a third category of “Cosmeceuticals” to include products like sunscreens that fell in the gap between “drugs” and “cosmetics.”¹¹ However, resistance from mass-market chains that are heavily invested in the cosmeceutical market makes any changes to current legislation unlikely in the short term.

Market Share

Global Cosmetic Industry Magazine estimated the size of the U.S. cosmeceutical market to be US\$2.8 billion in 2001.¹¹ According to The Freedonia Group, Inc (Cleveland, OH), the demand for formulated appearance-enhancing products was projected to increase by more than 7.4% per year through 2012 to US\$9.4 billion dollars (Table 1).¹⁰ In a study published by Kline & Co (Little Falls, NJ), U.S. and Western European sales of cosmeceutical ingredients related only to antiaging claims totaled approximately US\$130 million—\$150 million in 2005, mostly driven by the demand of baby-boomers.¹¹

Competition in the cosmeceutical market is increasing from several sources. Alternative treatments are gaining pop-

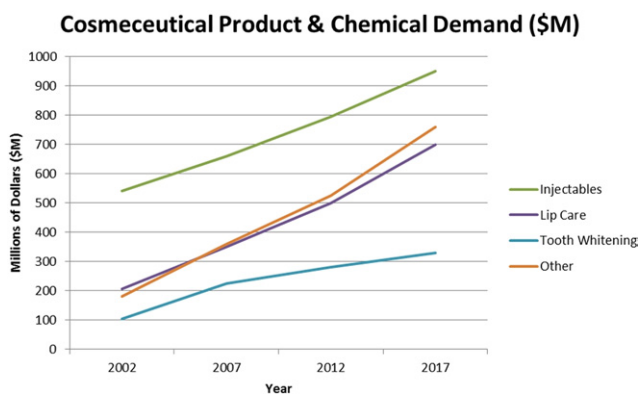


Figure 2 Cosmeceutical product and chemical demand (\$M) for injectables, lip care, tooth whitening, and other. Adapted from data published by the Freedonia Group.

ularity. Laser treatments, for example, offer more dramatic and immediate results than cosmeceutical products, but do so at greater cost and with greater risk. Competition from within the cosmeceutical industry is also expected to increase because of market penetration of private label cosmeceutical brands and the rapid commoditization of innovative ingredients and products.¹²

Despite the expectations of strong demand for cosmeceuticals in the United States and Europe, Western Europe’s economy is expected to achieve below-average growth of 3% from 2008 through 2013.¹¹ Offsetting the flattening economies in mature markets, emerging markets, such as China are anticipated to account for 13% of global antiaging sales by 2013.¹¹ Additional demand for cosmeceuticals is expected in Brazil, Russian Federation, and India because of a growing population of older consumers with a disposable income in these economies that are less credit-dependent than their Western counterparts.

Conclusions

The cosmeceutical industry is rapidly growing, with expected double-digit growth during the next 3 years. Although demand is growing, competition is also increasing with the entry of mass-market chains and alternative treatment options. In addition to the major manufacturers, doctor brands are penetrating the market and taking a significant market share. Although cosmeceutical products have the potential to enhance standard dermatologic treatment regimens, it is important that dermatologists are consulted before use. Cosmeceuticals are not regulated by the FDA, and the FTC only monitors product advertising statements. Thus, dermatologists should familiarize themselves with available products and carefully assess their quality before recommending cosmeceuticals to their patients.

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