Illness to Wellness: Paradigm Shift in Healthcare Industry

Introduction

The healthcare industry itself is undergoing functional and structural changes from a ‘fee-for-service’ to ‘value-based’ services at a national level in various countries. This movement is currently experiencing renewed impetus as several food components are being employed as medicines, either directly or as prodrugs. Indeed, there are areas in which the border between “food” and pharma is not well defined, as the former often contains several bioactive compounds including secondary plant molecules (polyphenols), fibers, friendly bacteria, essential fatty acids, probiotics, and other contributions. Furthermore, several current drugs are derived from natural products including those to which humans have been exposed via diet. Indeed, it is sometimes difficult to distinguish between bioactive molecules termed ‘drugs’ and other substances classified as ‘nutrients’.

Optimal health and prevention of chronic diseases can be attained (to a certain extent) by modulating the intake of macro- and micronutrients, often in pharmacological doses as in the case of supplements, nutraceuticals, and functional foods. Classic pharmacotherapy can also be accompanied by adjunct treatments with nutrition-derived remedies that are often able to decrease the doses of medicines and/or lessen their side effects. In summary, the border between pharma and food is becoming less distinct, and companies are marketing affordable, fast-moving nutraceutical products, with a focus on fortified foods and beverages [1].

Paradigm Shift: From Illness to Wellness

It is generally accepted worldwide that modern pharmaceuticals will remain out of reach of many people and “health for all” may only be materialized by the use of adequately assessed nutraceutical/phytomedicinal products. The human has been using food bioactive and/or herbal medicine for healing purpose from the beginning of human civilization. In recent times, use of herbal medicine for healthcare has increased steadily all over the world although it was neglected for decades by Western societies. However, the gaps in relation to the safety, claimed efficacy, and quality of herbal products used as herbal medicine for healing purposes from the beginning of human civilization are currently experiencing renewed impetus as several food components are being employed as medicines, either directly or as prodrugs. Indeed, there are areas in which the border between “food” and pharma is not well defined, as the former often contains several bioactive compounds including secondary plant molecules (polyphenols), fibers, friendly bacteria, essential fatty acids, probiotics, and other contributions. Furthermore, several current drugs are derived from natural products including those to which humans have been exposed via diet. Indeed, it is sometimes difficult to distinguish between bioactive molecules termed ‘drugs’ and other substances classified as ‘nutrients’.

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Challenges

Nutraceutical market is one of the most promising ones all over the world. But this market is not without its share of challenges. One of the most important needs today is the need to have evidence-based nutraceuticals. These are also referred to as the third-generation nutraceuticals. When deriving evidence-based nutraceuticals, it is vital that they be studied scientifically, supported on a clinical level, and has standardized new ingredients derived from plants, foods, etc.

The pharmaceutical and food sectors have independent as well as shared challenges as both are introduced at different stages in a life cycle. The pharma sector is at a maturity stage, while the nutria and food sectors in some countries are still at the growth and infancy stages. The challenges become even intense for the pharmaceutical industry because of difficult economic conditions in the past years and also huge fall of existing patents. Today, pharmaceutical industry requires total reforms right from developing alternate revenue models, to derive new focus on investments and behavior

Transition of Pharmaceutical Industry

The transition of the pharmaceutical industry from its traditional business model is ongoing and interesting to see how their next blockbuster molecule could be derived through different routes [2]. It is proposed [3] that the industry is challenged with three interrelated tipping points referring to what the industry sells (service models vs. therapies), to whom (mass markets vs. niche), and how it should organize itself (making connections vs. integration). The transition from current ‘high-risk, high-margin’ business model to ‘low cost high volume’ nutria business model is dependent on many factors and also advised to move into less regulated markets like animal and consumer health [4].

Diversification

Companies have started to look for alternatives to the blockbuster philosophy, which is simply diversification. As for example, Pfizer and Merck, being world leaders in consumer healthcare and animal health, follow diversification into their...
new business areas. The 2009 acquisitions of Wyeth and Schering-Plough, respectively, have consolidated their market position. Pfizer Consumer Healthcare is one of the top five over-the-counter (OTC) companies in the world. It sells two of the ten top selling OTC brands worldwide and accounted for revenues of €2,093 million after the acquisition of Wyeth (from Pfizer website http://press.pfizer.com/press-release/pfizer-acquire-wyeth-creating-worlds-premier-biopharmaceutical-company-accessed on 8 July 2016). The acquisition has also allowed Pfizer to gain a foothold into the nutraceutical market, whose infant nutritional have brought revenues of €1,410 million for 2010. Pfizer Nutrition is expected to grow due to the less strict regulated market and face competition from other diversifiers as well as the established food industry. A clear trend here is the move into delivering of not just treatments, but outcomes. An example of an outcome management is the Changing Diabetes program of Novo Nordisk (from Novo Nordisk website http://www.novonordisk.com/about-novo-nordisk/changing-diabetes.html), which provides support such as specialized training for healthcare professionals, support for diabetes patient organizations, free blood sugar screening services, and equipment supply for diabetes clinics.

Geographical diversification is pursued through the numerous contributions from the world’s fastest-growing, emerging markets, such as those in China, India, Brazil, Argentina, Turkey, and Romania. Despite high variations in their characteristics and stability, business in these areas offers important opportunities for growth over time. The most important strategic move is to relocate the expensive R&D activities into a lower-cost country and secure a front position in the largest emerging market through local partnerships.

**Conclusion**

The present model of nutraceutical or medical food industry is pharma-driven. It emphasizes on the cure for diseases or ailments for their customers in the sick care sector. To be successful, the focus of the nutraceutical model will have to shift from illness to wellness domain (Figure 1) i.e., preventive and promotional aspects. In the nutraceuticals domain, peripheral opportunities are also exist for managing chronic lifestyle diseases and ailments. With the emergence of lifestyle-related diseases such as obesity, tuberculosis, diabetes, arthritis, malaria, and cholera, which can be managed through preventive efforts?

![Figure 1: Transition from sick care to healthcare.](image)

**Acknowledgement**

I am grateful to Dr. RB Smarta, MD, Interlink Marketing Consultancy Pvt. Ltd., Mumbai, India for sharing his pearls of wisdom in writing this brief report.

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