

ESU 009 – Marketing issues for nutraceuticals and functional foods

Lecture 39



Introduction

Quality healthcare is the foundation of any prosperous nation. Today, food alone is unable to fully service the nutrition needs of the body. Nutrition is a fundamental need. It contribute to more than 40% of deaths and 30% of the overall disease burden in developing countries. Hence, the requirement of external intervention, that can supplement diet to help prevent nutrition-related disorders and promote wellness over treatment of illness, has become critical. Such products are collectively called as "nutraceuticals".

India's dietary pattern

ICMR norm for fruits and vegetables

Over nourished 80 million

nder nourished 380 million

Calorie sufficient, nutrient deficient population- 570 million

Deficient

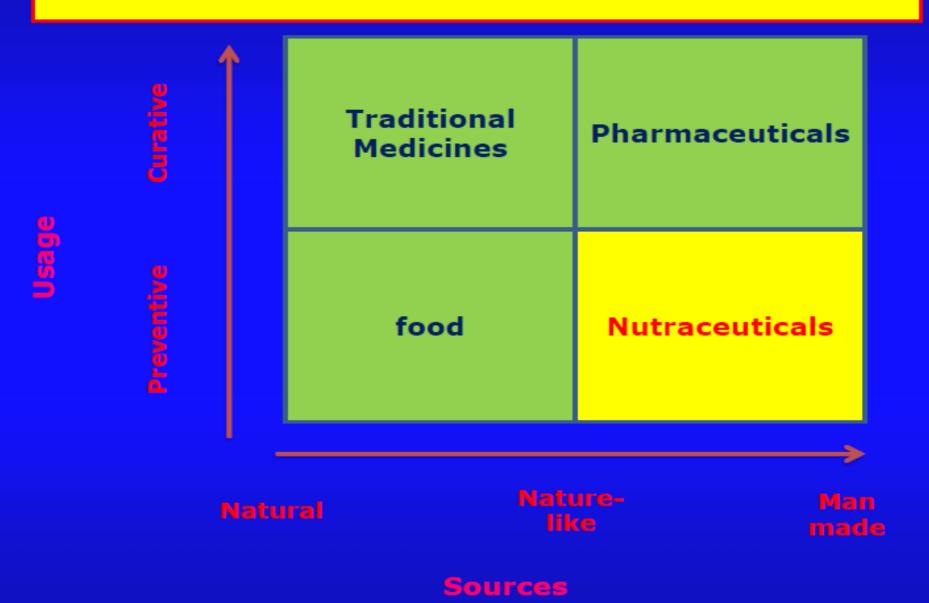
Adequate/excess

80% of norm level as defined by NSSO

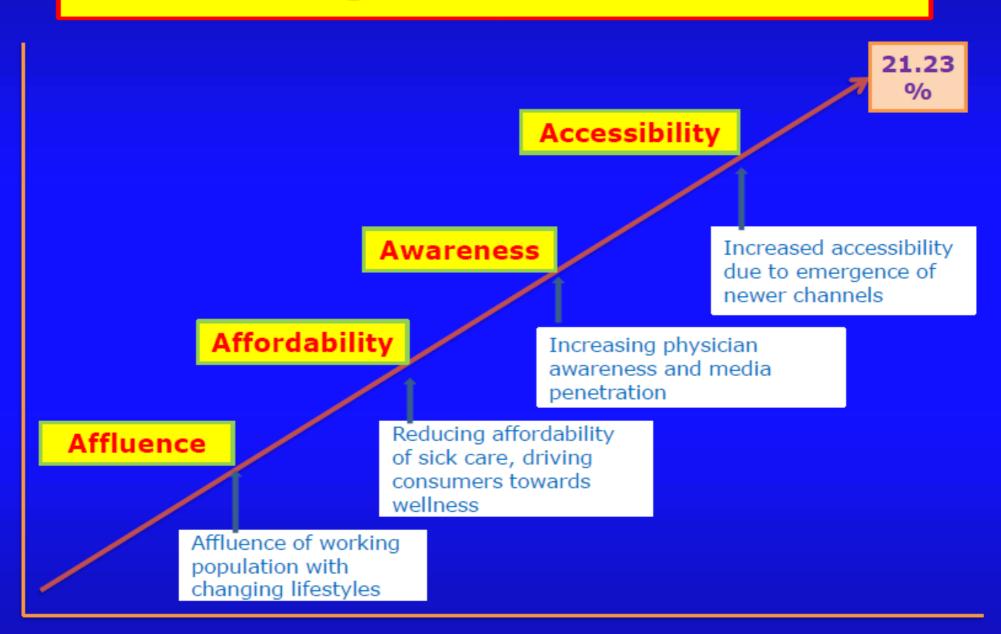
Calorie consumption



Position of nutraceuticals



Drivers for growth of nutraceuticals



Critical impediments for growth of nutraceuticals market

- Regulatory framework
- Resources for enforcement
- Lack of credibility
- Prices of nutraceuticals

Prices of nutraceuticals

| Product | Quantity | Price of conventional food/ pharmaceutical | Percentage increase in price for functional food functional beverages/dietary supplement |
|-----------------------------------------|------------|--------------------------------------------|------------------------------------------------------------------------------------------|
| Conventional and functional foods | | | |
| Salt | 1 Kg | INR 11 | 73% for low sodium variant |
| Conventional and functional beverages | | | |
| Chilled beverages | 330 ml | INR 20 | 350% for energy drink |
| Pharmaceuticals and dietary supplements | | | |
| Multivitamin tablets | 10 tablets | INR 15 | 233 % for vitamins in the form of dietary supplements |

Classification of nutraceuticals (As par US-FDA)

1) Dietary supplements

"A dietary supplement is a product taken by mouth that contains a "dietary ingredient" intended to supplement the diet. The "dietary ingredients" in these products may include: vitamins, minerals, herbs or other botanicals, amino acids, and substances such as enzymes, organ tissues, glandular, and metabolites, extracts or concentrates, and may be found in many forms such as tablets, capsules, soft gels, gel caps, liquids, or powders. E.g. iron supplement capsules.

2) Functional foods:

Functional foods are designed foods which provide enriched foods close to their natural state to consumer, rather than manufactured dietary supplements in liquid or capsule form.

- e.g. table salt fortified with iodine.
- 3) Medical foods:
 - In order to be considered a medical food the product must, at a minimum:
 - be a food for oral ingestion or tube feeding (nasogastric tube)

- be labeled for the dietary management of a specific medical disorder, disease or condition for which there are distinctive nutritional requirements, and
- be intended to be used under medical supervision
- e.g. Medical foods for management of diabetes mellitus generally contain slowly digested carbohydrates, which helps minimize peaks in blood sugar. Consistent maintenance of optimal blood sugar levels (avoiding highs and lows) over time can help reduce the complications of diabetes.

Scientific aspects of nutraceuticals

1. HIV/ AIDS:

United States Patent Application 20120195988; 2012, granted to inventors Rezai-Fard and Ali describes a saponin or sapogenin from the capsicum genus may be used

- in the treatment of HIV infection, or AIDS,
- to alleviate the symptoms of HIV or AIDS,
- to delay the onset of HIV infection, or
- to stop an HIV infection developing into AIDS.

2. Cancer:

United States Patent Application 20120195988, 2012; granted to Rezai-Fard and Ali mention a saponin or sapogenin as described herein can be used directly as a chemotherapeutic agent

 in the treatment of tumors and cancer in the human or animal body.

- to shrink tumors and kill cancer cells as part of chemotherapy.
- to decrease the swelling caused by cancers.
- to alleviate many of the side effects and symptoms caused by cancer and by various cancer treatments such as chemotherapy and radiation therapy.

Saponin and sapogenin from the capsicum genus, along with their derivatives, may be used to treat any form of cancer including but not limited to breast, liver, lung, prostate, testicular, ovarian, cervical, uterus, brain, skin, colon, throat, mouth, bone, pancreas, stomach and lymph node cancer.

Thank you

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