

THE EVOLUTION OF PUBLIC & COMMUNITY HEALTH



COMMUNITY HEALTH
&
INFECTIOUS DISEASES

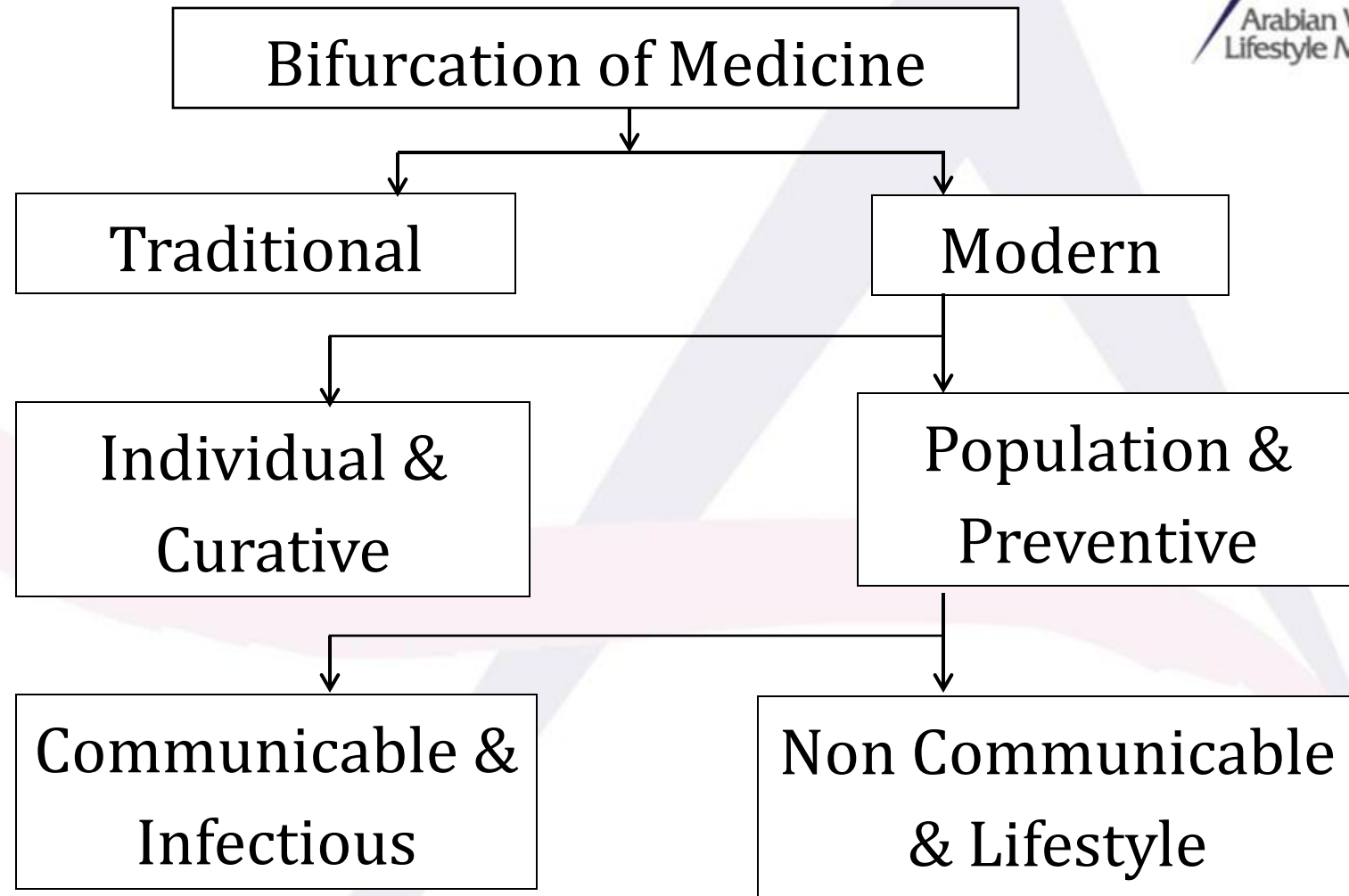
EVOLUTION OF MEDICINE

■ 5000 BC, Primitive Medicine (Witchcraft)

- 2700 BC, Chinese Medicine (Yin-Yang)
- 2000 BC, Egyptian Medicine (Herbs & Drugs)
- 1000 BC, Indian Medicine (Ayurveda)

- 450 BC, Greek Medicine (Hygiene)
- 200 AD, Roman Medicine (Anatomy & Surgery)
- 500 – 1500 AD, Europe (Middle & Dark Ages)
- 1600 – 1900 AD, Scientific Medicine (Infection)

■ 1900 – Present Modern Medicine (Lifestyle)



COMMUNICABLE & INFECTIOUS DISEASES

- **Respiratory**
 - Small pox / Chickenpox
 - TB
- **Intestinal**
 - Polio
 - Cholera
- **Arthropod Borne**
 - Malaria
 - Dengue
- **Viral**
 - Rabies
 - Plague
- **Surface Infections**
 - Leprosy
 - STD
 - HIV / AIDS

TRANSMISSION OF INFECTIOUS DISEASES

- **Source of Infection**
 - Human
 - Animal
 - Objects
- **Modes of transmission**
 - Direct (Contact & Droplet)
 - Indirect (Vehicle, Vector, Fomite)
- **Susceptible Host**
 - Respiratory Route
 - Digestive
 - Blood
 - Surface

BIRTH OF SCIENTIFIC MEDICINE EUROPE 15 & 16 TH CENTURY



- **Paracelsus, 1493 -1541 AD** (Swiss Physician)
(overthrew superstition as the cause of disease)
- **Fracastorus, 1483 – 1533 AD** (Italian Pathologist)
(explained STD through sexual contact)
- **Andreas Vasalus, 1514 – 1564 AD** (Dutch)
(Father of Modern anatomy)
- **Ambrose Pare, 1510 – 1590 AD** (French)
(Father of Modern Surgery)
- **Thomas Sydenham, 1624 – 1689 AD** (English Clinician)
(Diagnosed Scarlet fever, Malaria, Small pox)

GERM THEORY OF DISEASE

- Louis Pasteur (French) 1822 – 1895 AD
- Robert Koch (German) 1843 – 1910 AD

Microbe discoveries

- Gonococcus in 1847
- Typhoid bacillus, 1880
- Pneumococcus, 1880
- Tubercle bacillus, 1882
- Cholera vibrio, 1883
- Diphtheria bacillus, 1884

VACCINATION & IMMUNIZATION

- Edward Jenner 1823
 - Louis Pasteur 1895
-
- Small pox vaccine 1796
 - Anti rabies vaccine 1833
 - Cholera vaccine 1892
 - Diphtheria antitoxin 1894
 - Typhoid vaccine 1894
 - Antiseptics & disinfectants 1912

CONTROL & PREVENTION

- **Controlling the reservoir**
 - Early diagnosis
 - Drugs & Medication
- **Interruption of Transmission**
 - Vector eradication
 - Water, food, soil
- **Susceptible Host**
 - Immunization
 - Disinfection

PHASES IN PUBLIC HEALTH

- **1800 – 1920 AD Sanitation Phase**
 - Public Health Act 1848 – England
 - Water & Sanitation Charter 1858 – Massachusetts, USA
- **1920 – 1980 AD Health Promotion Phase**

Mother & Child Health	Mental Health
Industrial Health	School Health

- **1980 – 2000 Health for all Phase**
 - WHO Global Health Schemes
 - Equality in Health for all

PUBLIC HEALTH ADMIN IN INDIA



- **Union Ministry of Health**
 - Research, Education, Agencies
 - 170 Medical Colleges
- **State Health Ministries**
 - Primary Health Centers – 21,584
 - Hospitals – 10,260 (596,203 beds)
 - Nurses & Doctors – 8,60,000
 - Alternate & Workers – 6,00,000
- **Budget Rs. 30,000 Cr**

NATIONAL HEALTH PROGRAMS

WHO, UNICEF, HEALTH MINISTRY, NGO'S



- Malaria control & Eradication, 1953
- Leprosy eradication program, 1955
- National TB program, 1962
- Immunization program, 1978
- Water supply & Sanitation, 1954
- Minimum needs program, 1978

(Health, Water, Electricity, Education, Nutrition, Housing, Environment)

- National AIDS control, 1985
- Health for all program, 1996

HEALTH FOR ALL 2000AD



- Health Education
- Proper Nutrition
- Safe water & Sanitation
- Maternal & Child care
- Immunization
- Treatment of injury & disease
- Essential Drugs

PRIVATE HEALTH CARE IN INDIA



- Market size – Rs 50,000 Cr
- Hospitals (big and small) -1,000
- Clinics (Pharma & Diagnostics) – 5,000
- Telemedicine Centres - 600
- Health Care BPOs
- Medical Tourism
- Health Insurance

Health Care Providers:

Apollo Hospitals

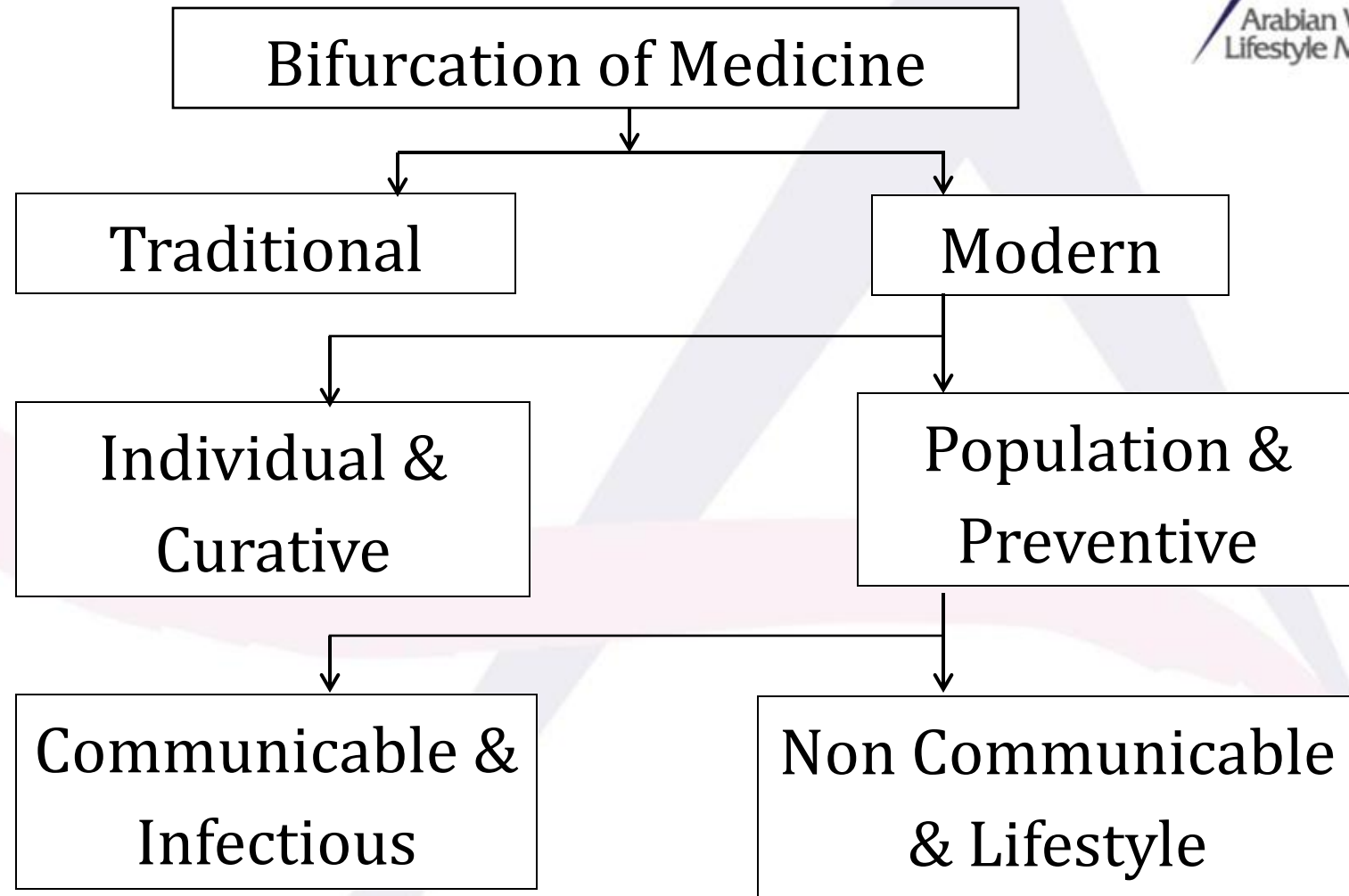
Fortis Health care

Max Health Care

Manipal Hospitals

COMMUNITY HEALTH & MODERN LIFESTYLE DISEASES

Managed by:



CAUSATION OF DISEASE



- Germ theory (Louis Pasteur) 1922
 - Agent -> Human -> disease
- Multifactorial causation (WHO) 1971
 - Human -> Lifestyle -> disease

Managed by:



MULTIFACTOR CAUSATION OF DISEASE

- Heredity
- Lifestyle
 - Diet
 - Activity
 - Stress
 - Habits
- Environment

CHRONIC LIFESTYLE DISEASES

- Coronary Heart Disease
- HBP / Diabetes
- Obesity
- Cancer
- Accident & Injury etc

MULTIDIMENSIONAL COMPONENTS OF HEALTH WHO 1948



- Physical / Nutritional
- Mental / Spiritual / Emotional
- Education / vocation / occupation
- Social / environment / health services etc

Managed by:



RESPONSIBILITY FOR HEALTH



- Self
- Community
- State / Country
- International

Managed by:



ASSESSMENT OF WELLBEING



- Standard of Living – WHO 1975
 - Physical aspects, including income, housing, nutrition, health, education, recreation
- Quality of Life WHO 1976
 - all the above including subjective aspects of happiness, satisfaction, self esteem, gratification

Managed by:



EVALUATION OF QOL FOR COMMUNITIES WHO 1984

- **Physical Quality of Life Index (PQLI)**
 - infant mortality
 - Life expectancy
 - Literacy
- **Human Development Index (HDI)**
 - Longevity
 - Education
 - Income

PREVENTION OF DISEASE

- **Primordial**
(prior to emergence of risk factors)
- **Primary**
(prior to emergence of disease)
- **Secondary**
(disease management)
- **Tertiary**
(rehabilitation)

URBAN INDIA HEALTH SURVEY



Component	Adult	%	child
Sedentry	55		72
Overweight	64		52
Stress	41		54
Dependencies	29		52

Managed by:



INTERNATIONAL HEALTH STATUS



Component	USA	%	India
Sedentry	40		55
Overweight	59		64
Chronic ailments	82		85
Stress	55		41
Smoking	28		20

Managed by:



WOW!!WORKING ON WELLNESS



■ USA

- American Heart association
- Sports Medicine association

■ Australia

- Healthy school programs
- Supporting seniors

■ Singapore

- School Health programs
- Workplace Health programs

■ India

- CII Corporate Wellness awards
- Govt. Schemes
- School Health

WORKING ON WELLNESS

INDIA



- Market size – Rs 50-60,000 Cr
- Health Professionals – 600,000
- Target Population:
 - 400 million Consumers (35% of Population i.e. Young and Beautiful, 15-34 Yrs)
 - 300 Million Urban (28% of Population- Stress, Obesity, Sedentary)

Managed by:



FROM ILLNESS TO WELLNESS



WOW! INDIA

WOW! INDIA

SEGMENT	PRODUCT / SERVICES
Allopathy	Pharmacies, Diagnostic, Dental, Eye, Cosmetic Surgery
Alternative Therapies	Ayurveda Treatments and Products
Nutrition	Health Foods and Supplements
Rejuvenation	Spas and Yoga Centers
Fitness And Slimming	Gyms and Slimming Centers
Beauty	Cosmetics, Hair, Skin, Salons
Counseling	Psychological, Academics, Corporate, Schools
Insurance	Health Insurance

SOME WELLNESS PLAYERS



WOW! INDIA

WOW! INDIA

COMPANY	PRODUCT / SERVICES
Apollo Hospitals Manipal Hospitals	Diagnostics, Pharmacies, Clinics And Counseling
HLL Dabur	Ayurveda Clinics Ayurveda Products
Agrotech Foods ITCFoods	Oils, Popcorn Atta, Flour
Oberois Taj Group	Hotels And Spas Hotels And Spas
Talwalkars VLCC	Gyms And Fitness Slimming Centers
Kaya Lakme	Skin Clinic Cosmetics Products
Reliance	Wellness Stores And Products
Insurance companies	Corporate Wellness

Managed by:



Arabian Healthcare
GROUP LLC

WHO, HEALTH FOR ALL, 2000 AD



The main social target of Governments in the coming decades should be attainment by all citizens of the world by the year 2000, of a level of health that will allow them to lead socially & economically productive lives

- WHO 1977 -

Thank You

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