Herbal medicine has now become an important part of human health care, not only in the developing countries but also in many developed countries.

As well as global tendency to ‘Back to Nature’

The Waves of Human Civilization
(The Third Wave, Alvin Toffler, 1980)

Stone Age and Nomadic Age were changed by AGRICULTURAL REVOLUTION

Followed by THE WAVE OF INDUSTRY with the inventions of steam engine and electricity

We are still experiencing THE WAVE OF TI and Telecommunication

And we are currently entering THE WAVE OF LIFE SCIENCE and will be reaching THE WAVE OF CREATIVITY

The Waves of Development in Pharmacotherapy

1. Traditional/Empirical Treatment

2. Paul Ehrlich (1854-1915) Father of Chemotherapy. For each disease there is a MAGIC BULLET. Various antibiotics and synthetic medications were invented

3. Biopharmaceuticals biotechnology-based medications: interferon, erythropoietin, etc.

4. Gene Therapy makes use of biological products made from the patient’s cells to treat himself/herself.

5. Cell therapy – Regenerative medicine makes use of own or another individual’s stem cell to replace the damaged tissue/organ.

Pattern of thought in MDGs

Health

Education

Partnership

Environment

MDGs

1. Health

2. Education

3. Partnerships

4. Environment
ECONOMIC IMPACT

‘Cost of Value’  ‘Intangible Cost’

NEGATIVE SOCIAL BEHAVIOR

ECONOMIC IMPACT

The point is individuals must be healthy...

The point is individuals must be healthy...

FOOD

communicable/ Non-communicable diseases

Educations

Malnutrition

Vision & knowledge

CMR MMR

The point is individuals must be healthy...

Quality human resources to achieve well-being

Risk Symptom Sickness Outcome

Healthy Early diagnosis Treatment

Healthy Sick

Family Doctor Specialist

A continuum concept of doctor-patient interaction

(Competencies, Level of Competencies, Position of General Practitioner (Family) and Medical Specialist in medical services)

Primary Medical Services’ should be able to conduct CIE and Services in:

- Family nutrition
- ’Hygiene’
- Illegal drugs
- Juvenile delinquency
- Family Planning/Reproductive Health
- ‘HIV/AIDS’ and ‘STD’
- ‘Stress’ and Mental Health in family

Should become integral part of competency, included in the curriculum!
Traditional Medicine

- **Medicines** whose usages are based on empirical knowledge, beliefs and experiences indigenous to different ethnic cultures, used in the maintenance of good health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses.

Poverty is a vicious circle:

- **Health problems** - people are vulnerable to illness
- **Elements of education** - ignorance
- **Environment** constitutes the necessity of life

GOAL 6: COMBAT HIV/AIDS, MALARIA & OTHER DISEASES (TB)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Target</th>
<th>Current Status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target 6a: Halt and begin to reverse spread of HIV/AIDS by 2015</td>
<td>Halt the spread of HIV/AIDS</td>
<td>0.2% (2009)</td>
<td>Off track, need special attention through the improved advocacy, CIE, and quality of healthcare services</td>
</tr>
<tr>
<td>Use of condom at high-risk sex</td>
<td>Increase</td>
<td>W = 10.3%, M = 18.4%</td>
<td></td>
</tr>
<tr>
<td>Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS</td>
<td>Increase</td>
<td>W = 9.2%, M = 14.7% (SDKL 2007)</td>
<td></td>
</tr>
</tbody>
</table>

Global Health Problems and the Challenges

**Communicable diseases**
- Tuberculosis
- Malaria
- HIV/AIDS

**Non-communicable diseases**
- Cancer
- Diabetes Mellitus
- Cardiovascular
- Etc.

**Determinants → Risk Factors → NCDs/CDs**

**Social Determinants**
- CD and NCD’s
  - CVD/Stroke, Cancer, Diabetes
  - HIV/AIDS
  - Diseases related to reproductive health

**Common Risk Factors**
- Modifiable
  - Unhealthy diet
  - Physical inactivity
  - Tobacco
  - Unhygienic practices

**Intermediate Risk Factors**
- High blood pressure
- Diabetes
- Overweight/Obesity
- Inadequate knowledge

**Unfinished Agenda**
- Maternal and Child Health

**Health Promotion: Challenges**
- Double burden of diseases
  - Non communicable diseases
  - Communicable diseases

- New threats to health
  - Avian influenza & possible threat of influenza pandemic, earthquakes

- Re-emerging diseases
  - TB, malaria, HIV/AIDS, dengue, kala-azar, yaws

- Promotion, Prevention, Surveillance

- Early diagnosis and treatment
The ICF conducts various cancer control programs, prioritizing 10 most frequently-found types of cancers in Indonesia:

1. Cervical cancer
2. Breast cancer
3. Liver cancer
4. Lung cancer
5. Skin cancer
6. Nasopharyngeal cancer
7. Colorectal cancer
8. Leukemia
9. Malignant Trophoblastic Disease
10. Malignant Lymphoma

Ratio of gender in cancer patients:
- Male: 44.4%
- Female: 55.6%

Problems:
- Communities (heterogeneous)
- Knowledge Vision
- Understanding & care for cancers
- Access to information through multimedia (electronic, website, print media)
- Awareness of Epidemic
- Early stage
- Low cost

Indonesian Population Pyramid in 2010

Population (2005): 225,000,000
Population (2030): 261,000,000

Communities (heterogeneous)
TRIPLE BURDEN ON POPULATION
2010 - 2015

- Infrastructure and facilities for geriatric care, social security, and adult residential home care
- Facilities and infrastructure on secondary and tertiary education, jobs
- Social and economic investment in infrastructure and facilities for provision of education

IS CANCER CURABLE?
Yes
If detected at early stage
By providing TIMELY and ACCURATE treatment

HEALTHY LIFESTYLE
Practicing good behavior in creating healthy life.

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CANCER RISK FACTORS - UICC
- Tobacco smoking
- Unhealthy diet
- Physical inactivity
- Exposure to infections and carcinogens

Smoking is the second largest contributor to poverty (March 2010)

Non Government Organization MISSION:
To raise public awareness in dealing with cancers by providing promotional, preventive and supportive activities.

Indonesian Cancer Foundations role in cancer control is to organize various promotional, preventive, and supportive activities emphasizing on the importance of early detection of cancer

INDONESIAN CANCER FOUNDATION’S MOTTO IS:
“CANCER CAN BE CURED IF DETECTED AT AN EARLY STAGE”

Without the involvement of every individual and components of the society, the effort to control cancers cannot be successfully achieved

works in cooperation with
the government, professional organizations, non-governmental organizations (NGOs), business sectors and concerned individuals.

www.bps.go.id 2011
**Sustainable Synergy & Harmonization of Public Private Partnership**

**What should we do?**
Practice a hygienic and healthy lifestyle
Preserve health by balanced nutrition and supplements

**Why Herbal Medicine?**
- Modern medications have side-effects that are difficult to avoid in a long period of use.
- Herbal medications are relatively safer to consume, inexpensive and readily available.
- There are certain diseases that cannot be treated using modern medications.

**Global development of traditional medications**
- In Africa ± 80% of its population use traditional medications.
- In China, consumption of traditional medications reaches 30-50% of the total consumption in the field of health.
- In Ghana, Mali, Nigeria and Zambia, around 60% of children affected by malaria are treated with traditional medications.
- In Europe and South Africa, ± 75% of HIV/AIDS patients use traditional medications.

**Market Potential of Herbal Medications**

<table>
<thead>
<tr>
<th>Year</th>
<th>Global market</th>
<th>Projected growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>EU: US$ 6 billion, USA: US$ 1.5 billion, Japan: US$ 2.1 billion, and outside Japan (RRC, Korea, etc.): US$ 2.3 billion.</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>Market value of food supplements in Europe: US$13.5 billion, 55% (US$ 7.43 billion) of which is herbal products.</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>Total world market of herbal medications: US$ 20 million, distributed to Europe 34%, North America 22%, Asia 39%, and other regions 5%.</td>
<td></td>
</tr>
</tbody>
</table>

- In USA, around 158 million people use traditional medications and according to USA Commission for Alternative and Complementary Medicines, in 2000 roughly US$ 17 million has been spent on traditional medications.
- In England, around US$ 230 million is spent on traditional medications each year.
Prospects of Herbal Medications in Indonesia

- Indonesian biodiversity: ± 30,000 types of plants, > 940 types of which are herbal plants.
- Indonesia is a vast agrarian country with enormous natural resources.
- Indonesia bequeaths a legacy of traditional medicine known since ancient times and preserved through generations.
- Population of more than 237 million is an immense and promising market.

**PROSPECT OF NATURE-BASED MEDICATIONS**

- Increasing number of scientific studies has not been utilized; some of them have been at clinical trial which prove the efficacy and safety of nature-based medications.
- The use of nature-based medications will continue to increase in both developing and developed countries.

WHO through WORLD HEALTH ASSEMBLY recommends the use of traditional medications, including nature-based medications in preserving community health, preventing, and treating diseases, particularly chronic, degenerative diseases and cancers.

The Indonesian culture has bequeathed a rich legacy of herbal drinks for preserving health and preventing diseases.

**National Policy**

- The government gives strong support for development and proper utilization of Indonesia traditional medicines.
- Ministry of Health of Indonesia launched the movement of *Back to Nature, Use Indonesian Traditional Medicine* to support and propel the utilization and development of Indonesian traditional medicines for health-care services (Moeloek, 1998).

**GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER**

<table>
<thead>
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<th>Current Status</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Proportion of population below $1 per day</td>
<td>10.3%</td>
<td>5.9%</td>
<td>Achieved</td>
</tr>
</tbody>
</table>

**Target 1A: Halve the proportion of people living on less than $1 a day**

<table>
<thead>
<tr>
<th>Proportion of severe malnutrition in children under five years</th>
<th>3.8%</th>
<th>5.4% (Riskesdas. 2007)</th>
<th>Need special attention through inter-sectoral cooperation and improved CIE.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of severe malnutrition in children under five years</td>
<td>18.5%</td>
<td>18.4% (Riskesdas. 2007)</td>
<td>Achieved</td>
</tr>
<tr>
<td>Proportion of people under minimum standard of energy consumption</td>
<td>5.9%</td>
<td>3.9% (BPS, 2007)</td>
<td>On track</td>
</tr>
</tbody>
</table>
Intellectual formation: depending on nutritional intake at early age and during pregnancy.

The lower the nutritional intake, the lower the ability to study.