

Enriching Knowledge for the Health Management and Social Care Curriculum Series : Community Health

Learning and Teaching References

- 1 Personal Needs and Development across Lifespan
- 2 Health and Well-being
- 3 Physical Well-being – Healthy Body
- 4 Mental Well-being – Healthy Mind
- 5 Social Well-being – Inter-personal Relationship
- 6 Healthy Community**
- 7 Caring Community
- 8 Ecology and Health
- 9 Building a Healthy City
- 10 Healthcare System
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- 15B Health and Social Care Issue – Discrimination
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- 15E Health and Social Care Issue – Poverty

Booklet 6

Healthy Community

September 2016

S4 – Concepts and Framework

Booklet (1) Personal development

Booklet (2) Health and well-being

S4 – Holistic Health

Booklet (3) Physical

Booklet (4) Mental

Booklet (5) Social

S5 – Macro Level

Health Management

Booklet (6) (8) (9) (10)

Social Care

Booklet (7) (11)

Round-up : Booklet(13) Health and Social Care Policies

Macro Level

**Health
Management**

**Social
Care**

**Disease
Prevention /
Medical Care**

**Health
Promotion**

**Booklet 7
Caring
Community**

**Booklet 11
Social Welfare
System**

**Booklet 6
Healthy
Community**

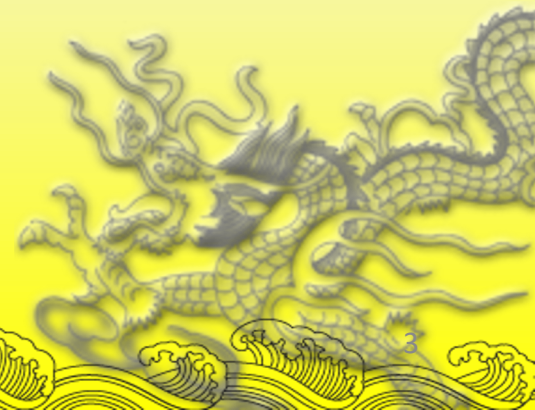
**Booklet 10
Healthcare
System**

**Booklet 8
Ecology and
Health**

**Booklet 9
Building a
Healthy City**

**ILL
BEING**

**WELL
BEING**



Learning Targets

Values and attitudes

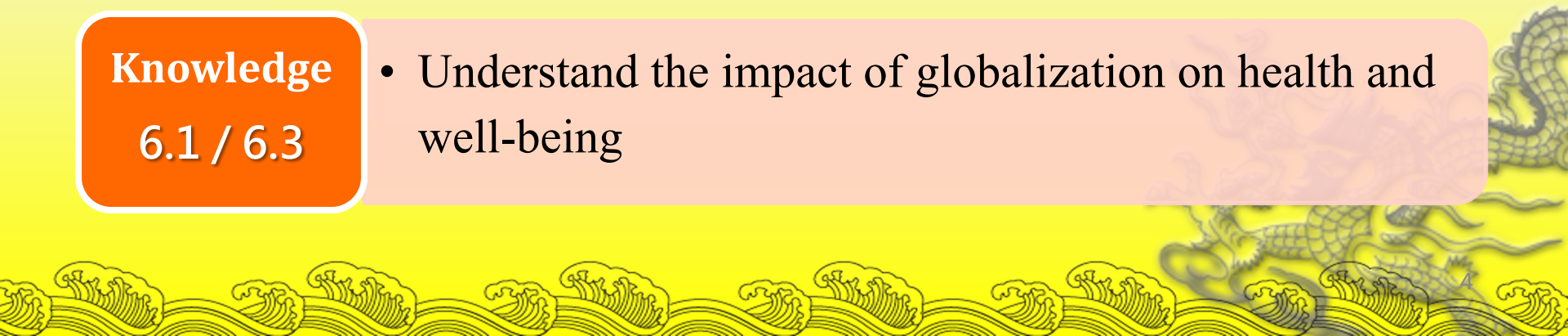
- Demonstrate a commitment to the promotion of personal health and a healthy lifestyle
- Encourage and support others in making health decisions for healthier lifestyles

Skills

- Carry out health practices that contributes to personal and public health

Knowledge 6.1 / 6.3

- Understand the impact of globalization on health and well-being



Knowledge

6.2 / 6.3

- Identify factors leading to the increases in vulnerability and exposure to diseases

Knowledge

6.4

- Analyse the relationships between lifestyle changes and common illnesses
- Understand how personal practices and attitudes contribute to disease prevention

Knowledge

6.5

- Understand the protective factors and risk factors to health and well-being
- Understand the roles of individual, community and government in health maintenance and ill-health prevention
- Differentiate among primary, secondary and tertiary disease prevention
- Understand how personal practices and attitudes contribute to disease prevention

Knowledge

6.6

- Understand the linkages between personal health practices and public health
- Evaluate the roles of government in maintenance and promotion of public health

Disease prevention

How can we build a healthy community?

**Strategies
in Disease
Prevention**

**Centre for
Health and
Protection**

Why do we need to develop a healthy lifestyle?

Primary Prevention

Secondary
Prevention

Tertiary
Prevention

How do diseases affect the health of
an individual and a community?

**Communicable
Diseases**

**Non-
Communicable
Diseases**

6.1 Trends of Diseases and Illnesses

- ◆ **Topic 2 - Health and Social Care in the Local and the Global Contexts**
- ◆ *2C Recent increases in vulnerability and exposure due to lifestyle changes, globalization and family changes*
 - ◆ 2C1 Lifestyle changes and illness
 - ◆ Common illnesses in the local context
 - ◆ 2C2 Globalization
 - ◆ Globalization and afflictions - Mobility and the spreading of communicable diseases
- *•To understand the impact of globalization on health and well-being*



6.1A Globalization and Afflictions



Examples of International Spread

HIV/AIDS

Ebola Virus

Human flu
(H3N2) /Avian
Influzena (H5N1)

6.1B Disease Burdens

World-wide

Non-communicable Diseases

Non-communicable diseases are fast replacing the traditional infectious diseases (such as typhoid, tuberculosis etc.) as the leading cause of disability and premature death

Mental Disorders

Increased no. of people suffering from depression and schizophrenia

Injuries

caused by accidents, violence and self inflicted incidents such as suicides and impact on functional and psychosocial disability

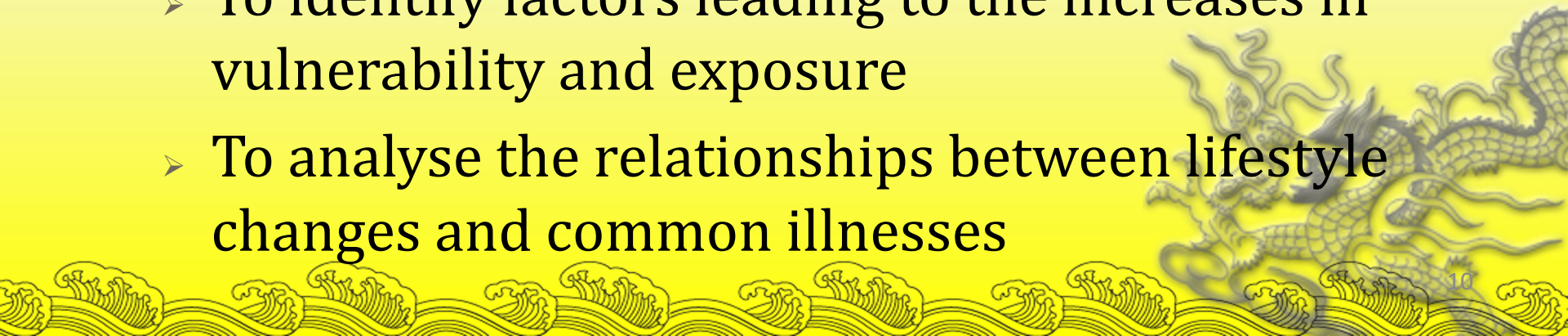
Local

Four Major Leading Causes of Death :

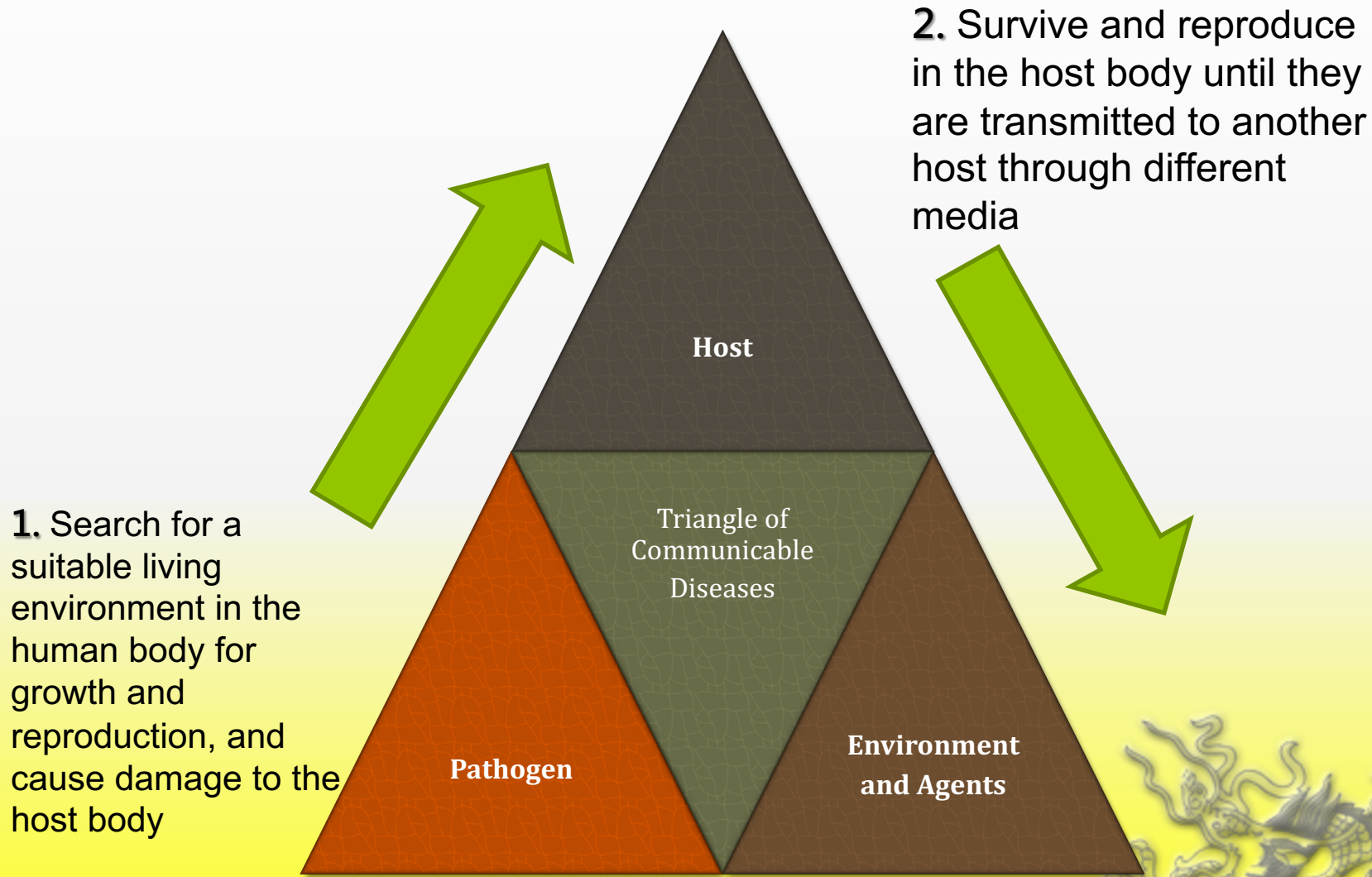
1. Malignant neoplasms (Cancer)
2. Pneumonia
3. Diseases of heart
4. Cerebrovascular diseases (Stroke)

6.2 Communicable Diseases

- ◆ **Topic 2 - Health and Social Care in the Local and the Global Contexts**
- ◆ *2C Recent increases in vulnerability and exposure due to lifestyle changes, globalization and family changes*
 - ◆ 2C1 Lifestyle changes and illness
 - ◆ Communicable diseases
 - ◆ Lifestyle changes and communicable diseases
 - To identify factors leading to the increases in vulnerability and exposure
 - To analyse the relationships between lifestyle changes and common illnesses



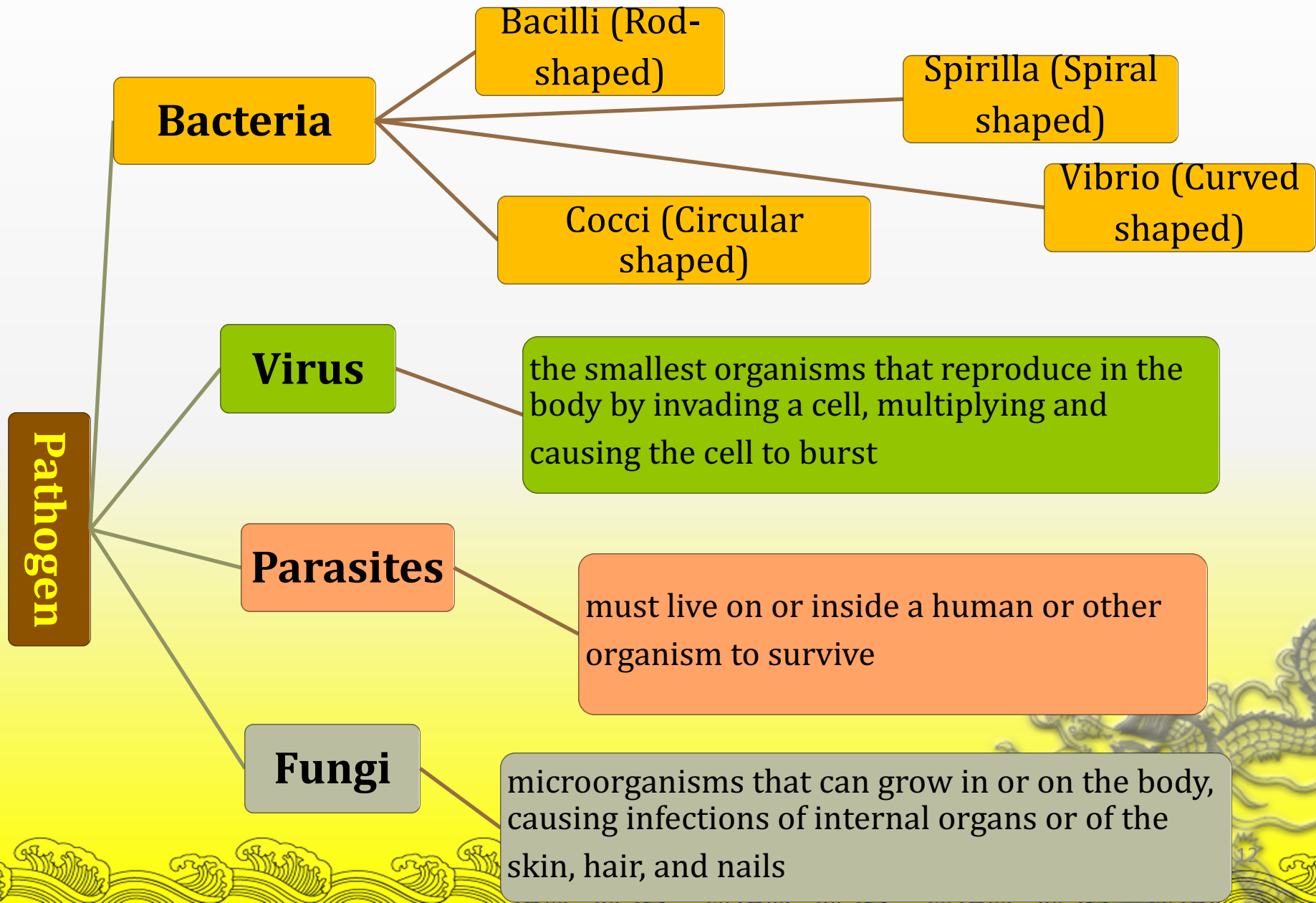
6.2 Communicable Diseases



Disease Prevention : if any of the two factors are under control

6.2 Pathogen

very small and do not have a nucleus and organelles



6.2 Pathogen

Transmissibility

- Physical movement from one host to another and the biological ability to infect the second host
- Examples of contagious diseases are smallpox, measles, chicken pox

Pathogenicity

- Ability of a pathogen to make people sick and revealed in the proportion of the onset of illness to the infected population
- Examples of highly pathogenic diseases are smallpox, measles, chicken pox, rabies

Virulence

- Severity of the illness
- severe symptoms, such as dengue hemorrhage; serious complications, such as life-long physical disability and death

6.2 Environment and Agents

	<u>Direct contact</u>	<u>Indirect contact</u> <i>an intermediate carrier is involved</i> <i>e.g. mosquitoes, birds</i>
Droplets	through the contacts of the droplets of an infected person(Influenza)	
Inhalation	pathogens exhaled or discharged into the atmosphere by an infected person are inhaled by and infect another person(Tuberculosis)	
Ingestion	organisms carried on hands or in food and drink / spread by particles of vomit onto environmental surfaces, then via hand contact into mouths (Hepatitis A, Salmonella)	Fecal-oral transmission - Contact the droppings of the infected poultry (Avian Influenza)
Inoculation	following a 'sharp' injury when blood which is contaminated is directly inoculated into the blood stream of the victim (HIV) / injection/ sex	Transmission of infectious agents through blood / body fluid (Dengue fever)

6.4B Sexually transmitted diseases

Virulence

- Serious as they affect the genital organ and cause pain and sterility. They can spread to other organs and cause complications or death.

Example

- Syphilis, Gonorrhoea, Non-Gonococcal Urethritis, Non-Specific Genital Infection, Genital Warts, Trichomoniasis, Pubic Lice and Herpes Simplex type II infection

Transmission

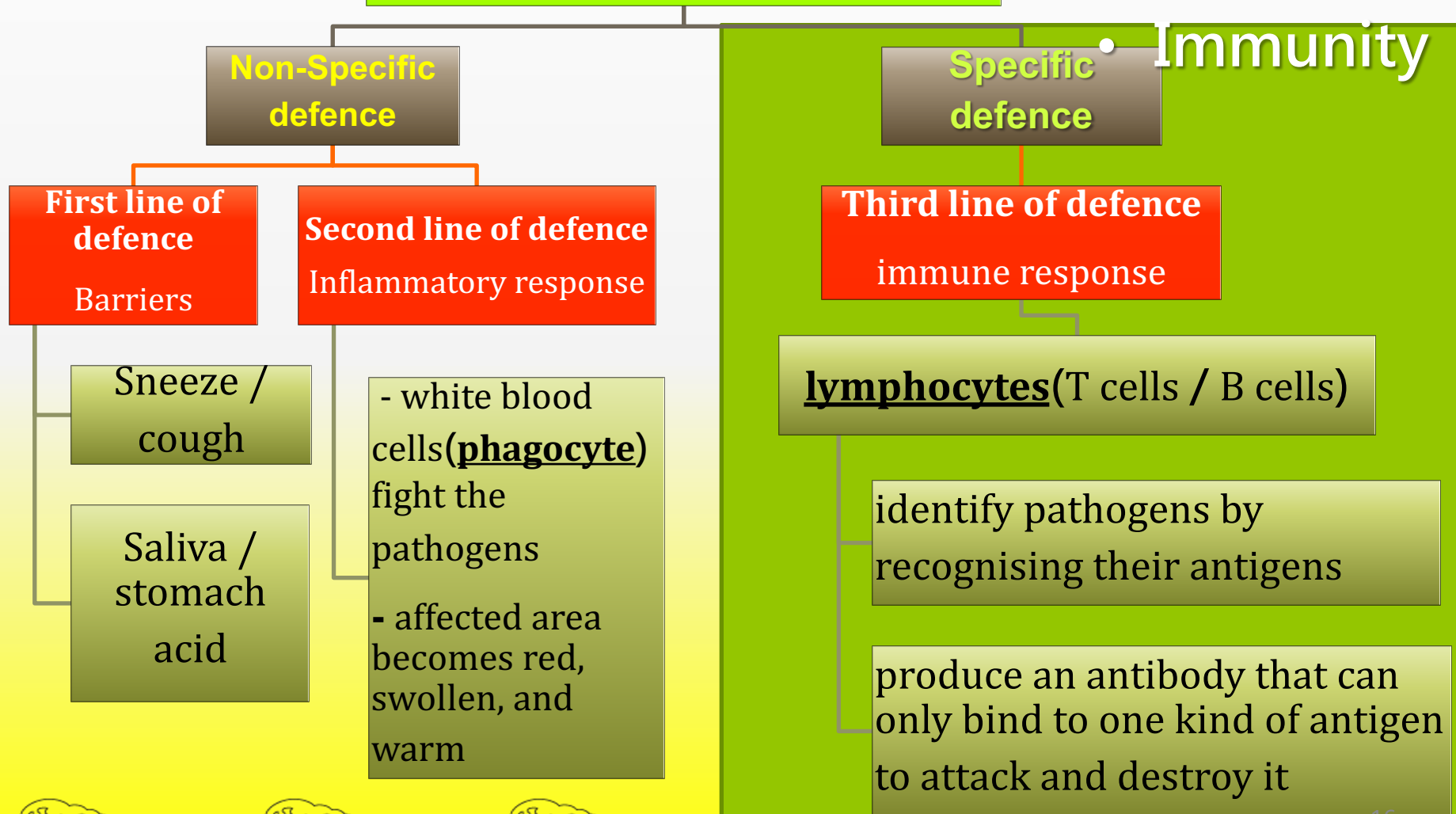
- through sexual intercourse including vaginal sex, oral sex and anal sex



6.2 Body Defence

controls the way in which the body resists attacks from foreign invaders

Immune System



• Immunity

6.2 How Immunity is built?

Antigens

- e.g. bacteria, pollen, or the toxins produced by bacteria

White blood cells (lymphocytes)

- identify the invader (antigen)

Antibodies

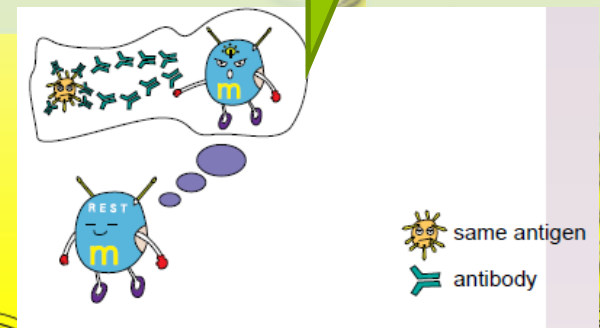
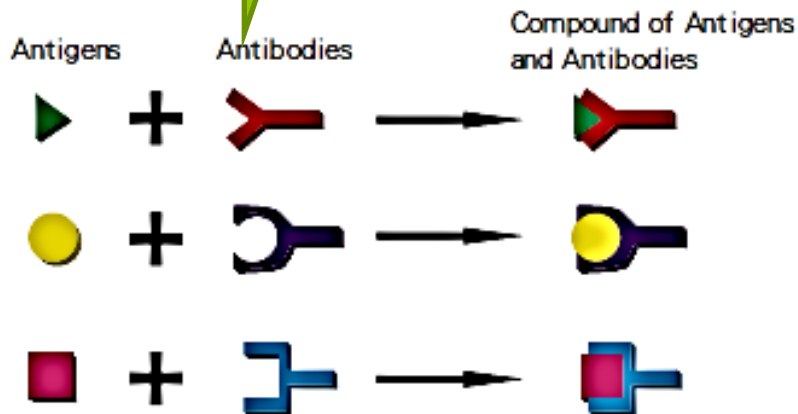
- emergence of an antigen can stimulate the immune system to produce antibodies

Compound

- antibodies encounter the antigen and combined to form a compound. The compound is then exterminated

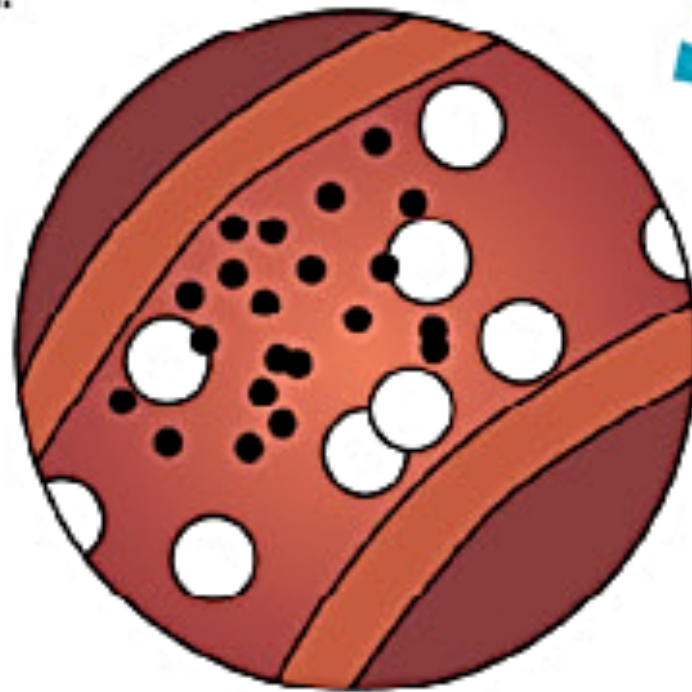
Memory cells

- some of the lymphocytes will become 'memory cells'. - encounter the same antigen later, able to produce the antibodies in a short period of time



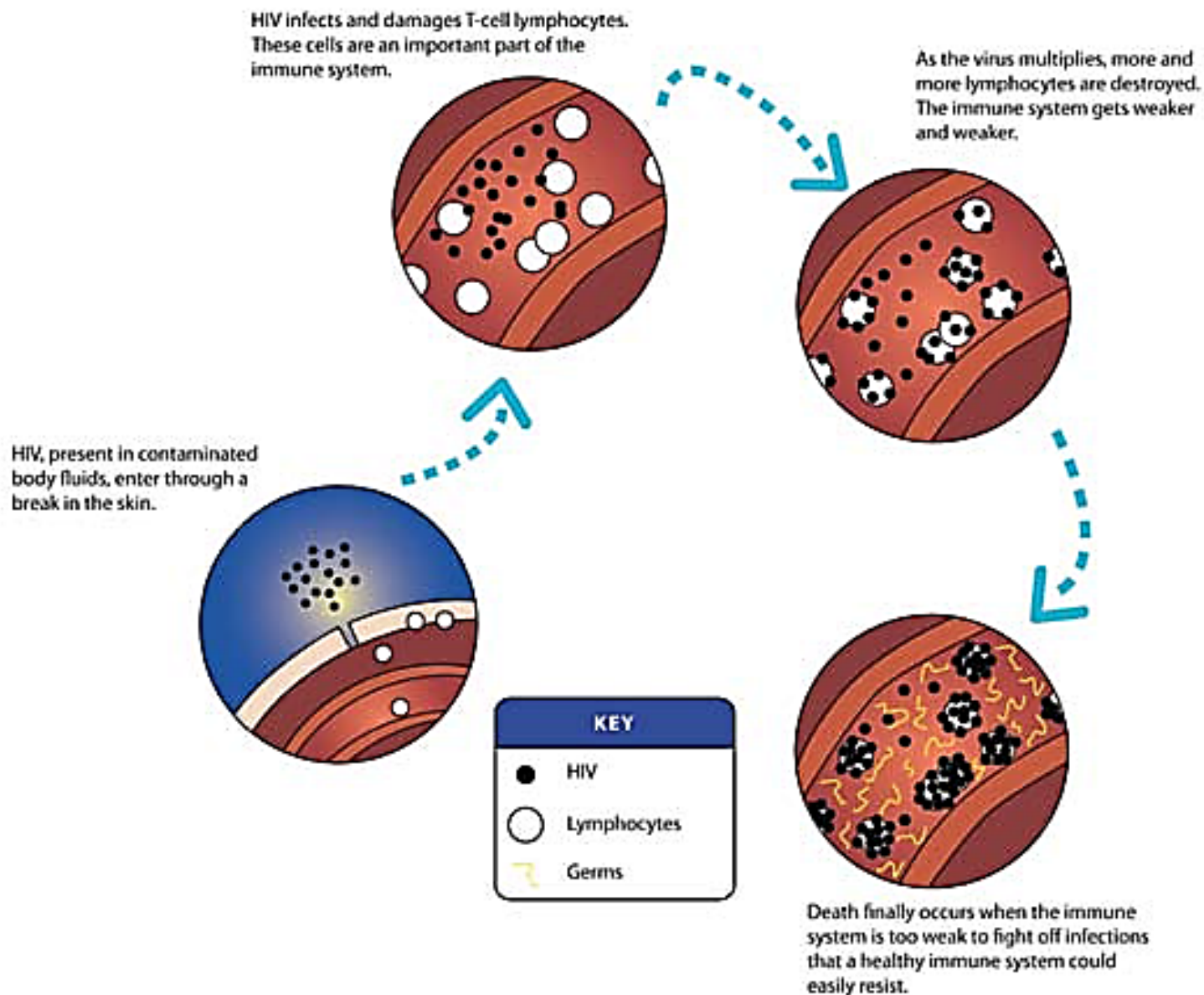
Human Immunodeficiency Virus(HIV)

HIV infects and damages T-cell lymphocytes. These cells are an important part of the immune system.

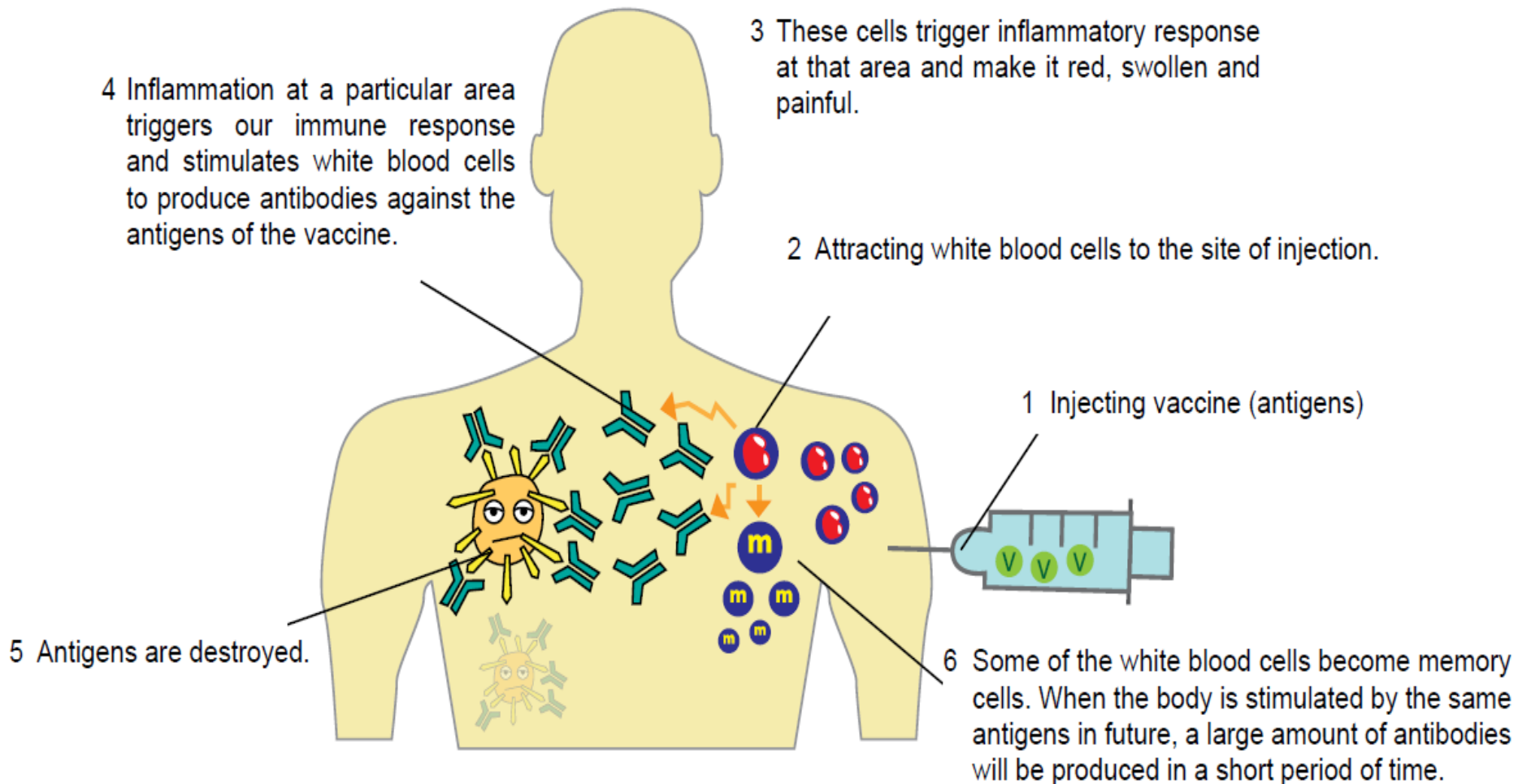


How HIV Attacks the Immune System

HIV keeps the immune system from responding as it should. Eventually the body is destroyed by one or more infections.



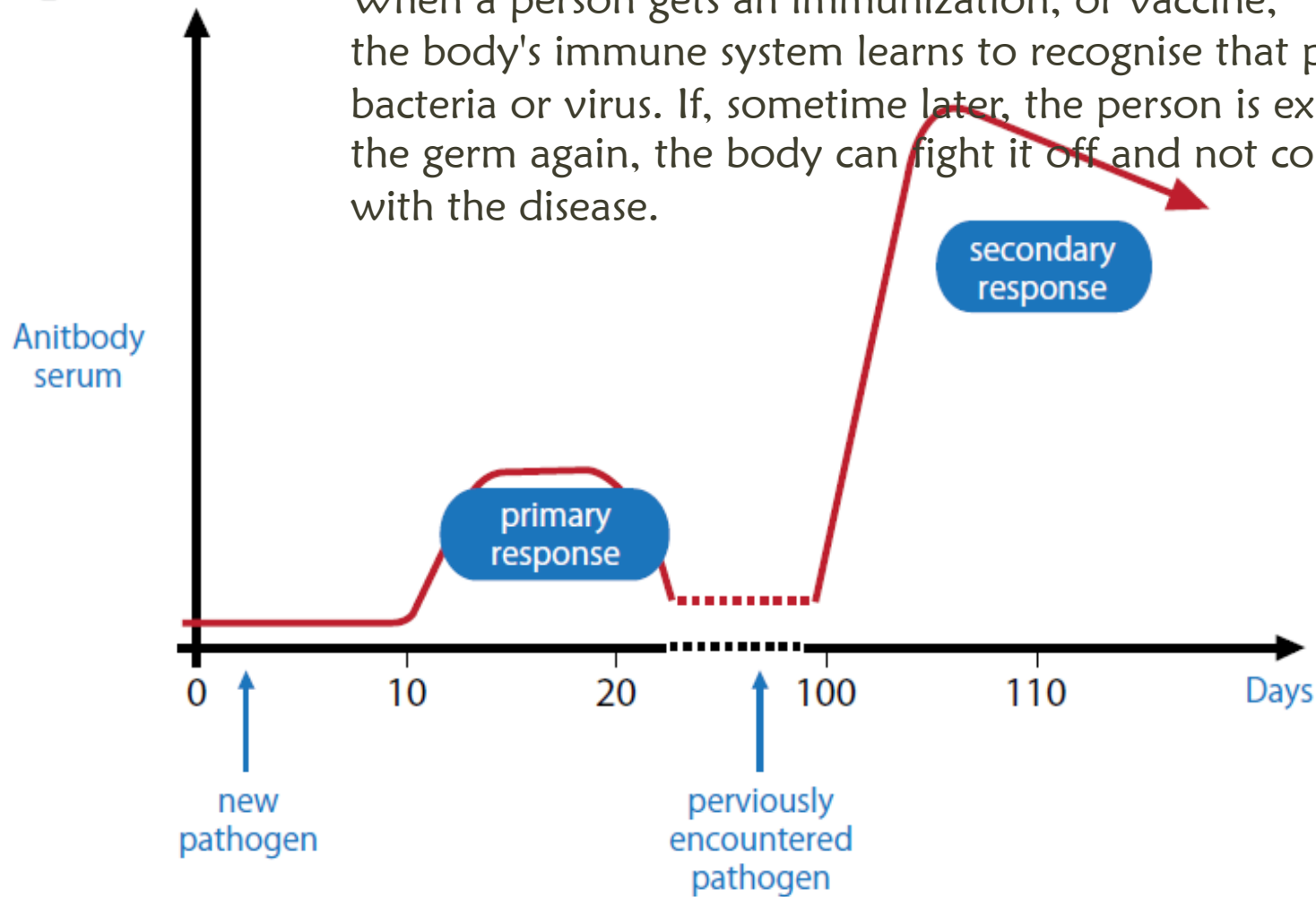
Vaccination





Primary and Secondary Responses

When a person gets an immunization, or vaccine, the body's immune system learns to recognise that particular bacteria or virus. If, sometime later, the person is exposed to the germ again, the body can fight it off and not come down with the disease.



Primary response: the first time invaded by a certain pathogen which stimulates the body to produce antibodies.

Secondary response: the invasion of the same type of pathogen which stimulates lymphocytes to produce much larger amount of antibodies and much more quickly.

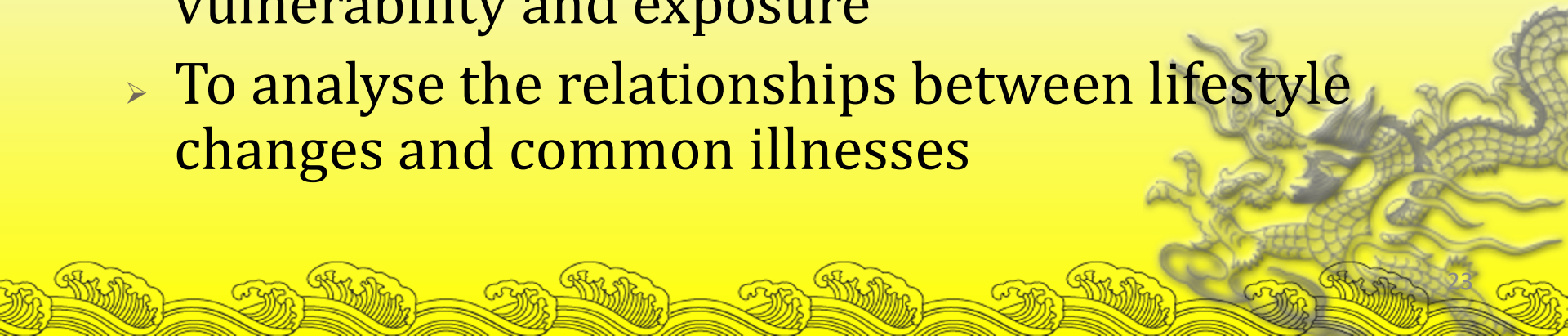


6.4 Lifestyle changes and communicable diseases

	Lifestyle	Change	Example
Pathogen	Globalization	Cross-boarder transmission due to increased international trades and travels. (6.1A)	Influenza (H3N2)
Host	Attitudes towards sex and sexual behaviours (HIV / AIDS Patients)	Unsafe or unprotected sexual behaviour contributes to the problems of cross-border transmission of HIV / other sexually transmitted diseases (STDs)	HIV / AIDS
Environment and agents	High-risk sex behaviour	accept / engage in premarital sex/ have multiple sexual partners/ lack of knowledge about STDs	Syphilis, Gonorrhoea, Genital Warts, Trichomoniasis, Pubic Lice and Herpes Simplex type II infection
	Hygiene practice	Public awareness on the hygiene practices such as hand-washing and wearing masks <ul style="list-style-type: none"> Less hand-washing practice and more cases of food poisoning 	Food poisoning

6.3 Non- Communicable Diseases

- ◆ **Topic 2 - Health and Social Care in the Local and the Global Contexts**
- ◆ *2C Recent increases in vulnerability and exposure due to lifestyle changes, globalization and family changes*
 - ◆ 2C1 Lifestyle changes and illness
 - ◆ Lifestyle changes and non-communicable diseases
 - To identify factors leading to the increases in vulnerability and exposure
 - To analyse the relationships between lifestyle changes and common illnesses



6.3 Non- Communicable Diseases

(Refer to Booklet 3 – body systems and indicators of physical health)

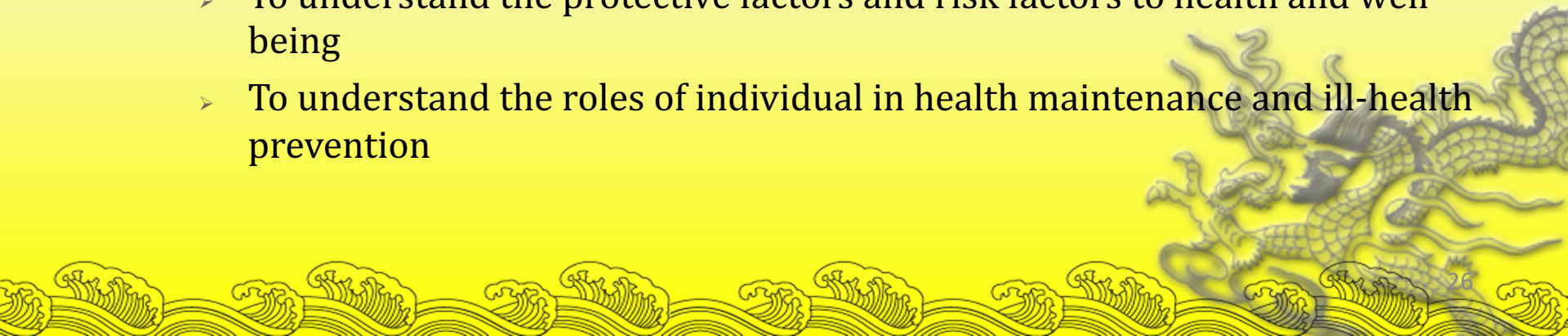
Chronic Diseases		Description
<i>Cancer</i>	lung cancer, colorectal cancer, liver cancer, stomach cancer and breast cancer etc.	linked to changes in the normal make-up of a cell, leading to the uncontrolled growth of abnormal cells.
<i>Cerebro-vascular diseases</i>	Stroke etc.	related to disease of the blood vessels supplying the brain. The arteries of the brain can be blocked by blood clots and deprive the brain cells of nutrients and oxygen. Alternatively, bursting of an artery of the brain causes a devastating cerebral haemorrhage with disruption of brain tissue
<i>Heart diseases</i>	coronary heart disease, hypertensive heart disease, chronic rheumatic heart disease and congenital heart disease etc.	when cholesterol layers deposit on the inner wall of coronary arteries and narrow the lumens of the arteries. The process reduces blood supply to cardiac muscle and causes exertional chest pain known as angina.
<i>Diabetes mellitus</i>	<ul style="list-style-type: none">• Type I - little or no insulin is produced due to heredity or diseases• Type II - reduced insulin secretion and the body cells do not react to insulin due to risk factors such as obesity	characterised by a raised blood glucose level resulting from insulin deficiency, insulin resistance or both
<i>Obesity</i>		BMI from 23 to less than 25 is classified as overweight and BMI 25 or above is classified as obese.

6.4B Lifestyle changes and non-communicable diseases

Lifestyle		non-communicable diseases
Sedentary lifestyles	less exercise and more physically inactive lifestyle results in the decline in energy expenditure and increase in the risk of obesity	colorectal cancer (colon / bowel cancer), breast cancer cerebrovascular diseases, obesity, heart diseases
Unhealthy dietary practice	low intake of fiber and high intake of red meat and processed meat lead to the accumulation of the bad cholesterol and fat in the blood vessels / Diets with high fat, high salt and high sugar but low fibre and low calcium increase the risk of various diseases	colorectal cancer cerebrovascular diseases, obesity, heart diseases
Cigarette smoking	nicotine is addictive and can be used in the psychotropic drugs. The chemicals produced in tobacco can quickly reach the brain through the blood vessels and the lungs	bladder cancer, lung cancer, cerebrovascular diseases, heart diseases
Alcohol consumption	excessive intake of alcohol will directly affect the body's tissue, leading to the damages of the liver, kidney and brain	liver cancer cerebrovascular diseases, heart diseases
Hazards in workplace	persisting exposure to the chemical and radiation substances in industries	bladder cancer, lung cancer, leukemia (cancer of the blood)
Stress	lead to the cerebrovascular changes , lower the immunity and hinder the production of the hormones that repair body and prevent cancers	heart diseases and cancers

6.5 Disease Prevention

- ◆ Topic 3 Responding to the Needs in the Areas of Health (care, promotion and maintenance) and Social Care
- ◆ ***3A The notion and practice of health promotion, health maintenance, ill-health prevention, social care, welfare and community services***
- ◆ 3A2 Health maintenance and ill-health prevention
 - ◆ Personal Role
 - ◆ Protective factors: exercise, recreation and rest, balanced diet, good hygiene practices, protective measures (e.g. helmets, seat-belts), universal precautions
 - ◆ Risk factors: drug abuse, inadequate exercise/rest, unhealthy dietary habits, non-hygienic practices , harmful/unsafe practices , a sedentary lifestyle
 - To understand the protective factors and risk factors to health and well-being
 - To understand the roles of individual in health maintenance and ill-health prevention



6.5 Disease Prevention – Three Levels

- ◆ Topic 4 - Promotion and Maintenance of Health and Social Care in the Community
- ◆ *4A Disease prevention (primary, secondary and tertiary) and using precautions in our daily living patterns and lifestyles*
 - ◆ 4A1 Primary, secondary and tertiary prevention
 - To differentiate among primary, secondary and tertiary disease prevention



6.5 Disease Prevention – Three Levels

primary

- Target : healthy population
- Aim : avoiding the development of a disease or injury
- Examples : public education and vaccinations

secondary

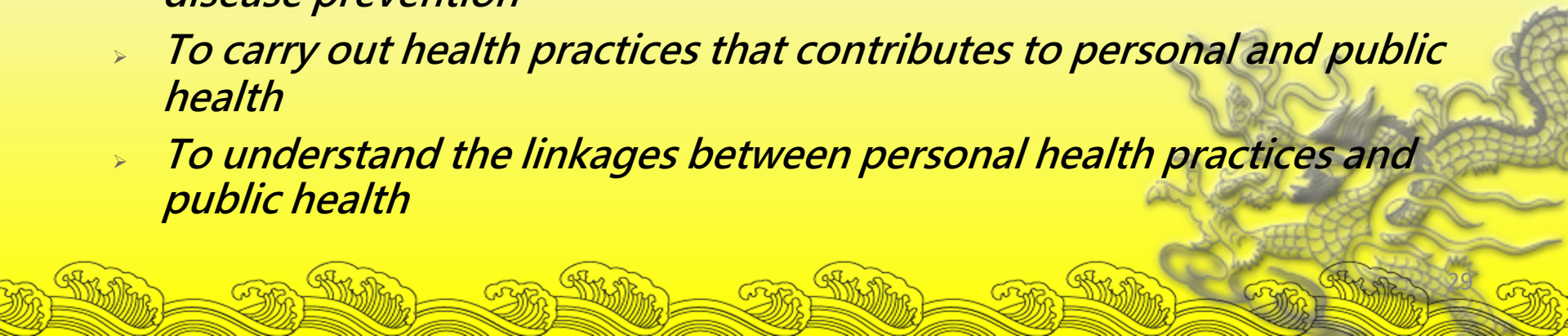
- Target : population at risk
- Aim : early detection of diseases, thereby increasing opportunities for intervention to prevent the progression of the disease
- Examples : health check-ups (e.g. blood pressure assessment) and disease screening, such as Pap smears

tertiary

- Target : the sick
- Aim : proper rehabilitation of patients with an established disease to minimize residual disabilities and complications
- Examples : rehabilitation services

6.5 Disease Prevention – Individual Level

- ◆ Topic 4 - Promotion and Maintenance of Health and Social Care in the Community
- ◆ ***4A Disease prevention (primary, secondary and tertiary) and using precautions in our daily living patterns and lifestyles***
 - ◆ 4A2 Personal hygiene practices and prevention of communicable diseases
 - ◆ 4A3 Regular exercise, leisure activities and healthy diet in preventing health problem e.g. heart attacks, strokes, obesity and hypertension
 - ◆ 4A4 Attitude towards sex and substance abuse for the prevention of sexually transmitted disease or addiction
- *To understand how personal practices and attitudes contribute to disease prevention*
- *To carry out health practices that contributes to personal and public health*
- *To understand the linkages between personal health practices and public health*



6.5 Disease Prevention – Individual Level

Healthy Lifestyles

Personal hygiene practices	<ul style="list-style-type: none">• hand hygiene -correct hand washing practice and proper use of alcohol-based hand rub• wearing mask-properly worn and disposed will be effective in preventing the spread of respiratory tract infections through droplets
Regular exercise	<ul style="list-style-type: none">• improves cardio-pulmonary function and reduces the risk of developing many chronic diseases• maintain body weight and healthy bones, muscles and joints• decrease bone loss and prevent osteoporosis in menopausal women• promotes psychological well-being and reduces stress, depression as well as anxiety• refer to booklets : 2.2A2/ 3.2A2/6.4C1-2
Recreation and rest	<ul style="list-style-type: none">• restoration of the body, mind or spirit : (1) producing feelings of relaxation or excitement ; (2) enhancing self-reliance, mental health, and life-satisfaction• quality sleep at night enables the body to regain strength and energy. Lack of quality rest results in poor mental condition and may lead to some accidents.
Diet	<ul style="list-style-type: none">• the intake of all essential nutrients should be within proper limits, e.g. avoid over intake of cholesterol and salt in diets / adequate intake of fruit and vegetables• refer to booklets : 2.2A1 / 3.2A1/ 6.4C2 / 6.5B
Sexual relationship	<ul style="list-style-type: none">• avoid casual sex• safe sex and condoms used properly during each sexual contact

6.6 Government Strategies in Disease Prevention

- ◆ Topic 3 Responding to the Needs in the Areas of Health (care, promotion and maintenance) and Social Care
- ◆ *3A The notion and practice of health promotion, health maintenance, ill-health prevention, social care, welfare and community services*
- ◆ 3A2 Health maintenance and ill-health prevention
 - ◆ • **Society Role**
 - ◆ the role of government in health maintenance
 - ◆ the collection and application of data in health protection of the citizens
 - *To understand the roles of government in health maintenance and ill-health prevention*



6.6 Government Strategies in Disease Prevention

- ◆ Topic 4 - Promotion and Maintenance of Health and Social Care in the Community
- ◆ *4A Disease prevention (primary, secondary and tertiary) and using precautions in our daily living patterns and lifestyles*
- ◆ 4A7 Government strategies :
 - ◆ Policy making
 - ◆ Diseases prevention and surveillance
 - ◆ Control of the disease spreading
 - ◆ Public health promotion
 - ◆ Resources management
- *To evaluate the roles of government in maintenance and promotion of public health*



6.6 Government Strategies in Disease Prevention

Strategy	Example
<i>Control of the disease spreading</i>	During the outbreak of disease, to set up relevant infection control and management policies for hospitals, clinics, schools, kindergartens, old-age homes
<i>Policy making</i>	To plan and conduct consultation on strategic directions of the government to achieve the objectives of health care reform, e.g. to strengthen the preventive care
<i>Public health promotion</i>	To provide the necessary information, encouragement and infrastructure to enable people to control and improve their health
<i>Diseases prevention and surveillance</i>	To oversee the development of disease prevention, identify and assess the impact of social and environmental variables to health, as well as to protect health through legislation and regulation
<i>Resources management</i>	To provide services ranging from disease surveillance and prevention, health education and promotion, to immunization and health screening



6.6 Government Strategies in Disease Prevention – Communicable Diseases

Real time surveillance

- To collect data from clinics and hospital
- To analyse the data and provide timely dissemination in order to act promptly to prevent and control the spread of disease

Rapid intervention

- To provide prompt and effective investigation into outbreaks
- Appropriate control measures can be implemented at the earliest possible time

Responsive risk communication

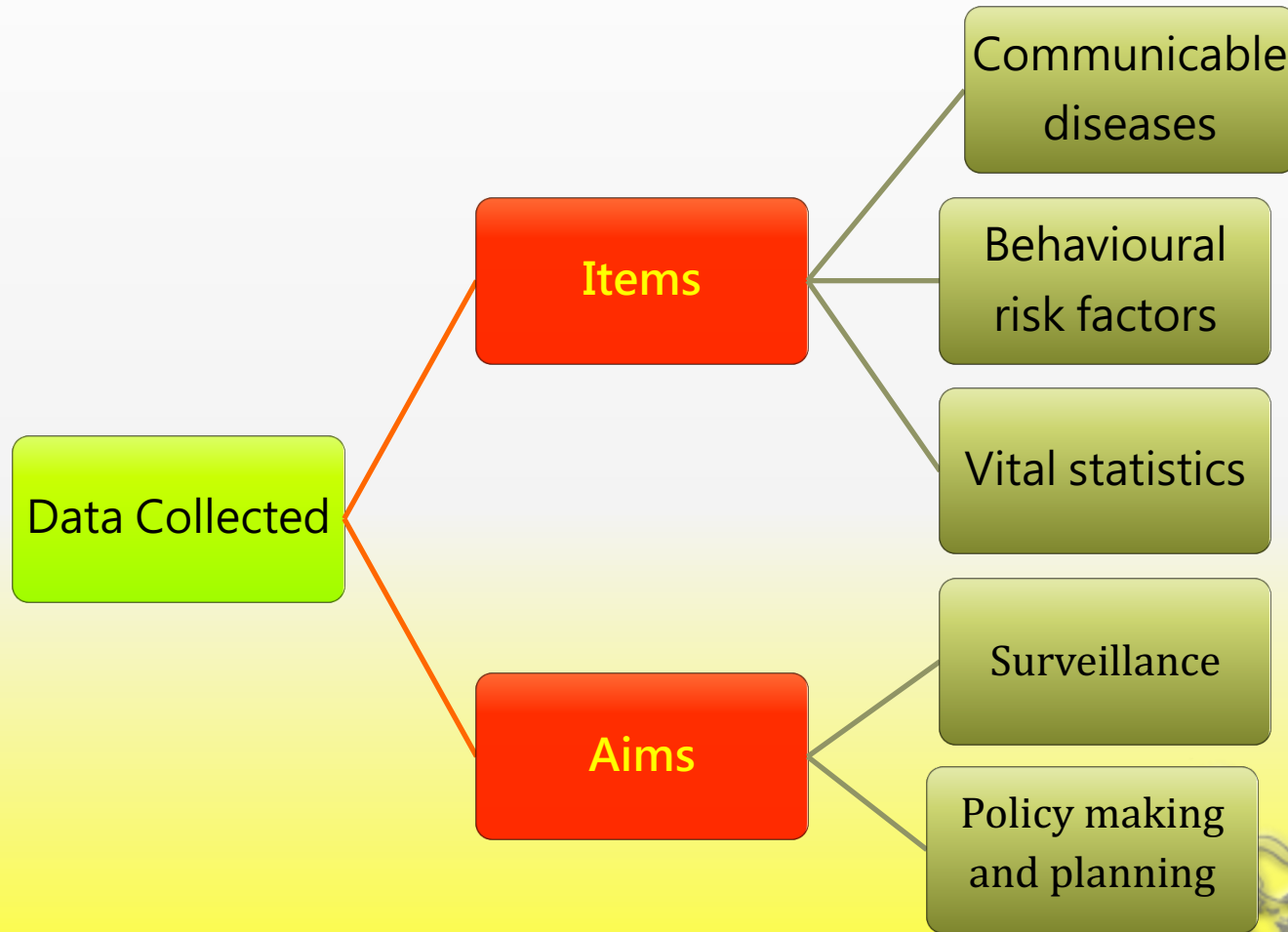
- Issue of timely alerts and orderly dissemination of credible information on the risks of influenza
- Various sectors of the community can take precautionary measures as early as possible



6.6 Government Strategies in Disease Prevention – Non -communicable Diseases

Strategy	Example
Support and strengthen health promotion and NCD prevention initiatives or activities	<ul style="list-style-type: none"> • Fostering implementation of territory-wide health promotion programmes such as "healthy eating", "active living" and "tackling the issue of being overweight" • Supporting health promoting schools, smoke-free public places, healthy workplaces and healthy cities
Generate an effective information base and system to guide actions across the disease pathway	<ul style="list-style-type: none"> • Improving surveillance of NCD and track changes in the risk profile and health determinants of the population
Strengthen partnership and foster engagement of all relevant stakeholders	<ul style="list-style-type: none"> • Involving and engaging all levels of the Government, local communities and the public to create an environment conducive to the promotion of healthy behaviours
Build the capacity and capability to combat NCD	<ul style="list-style-type: none"> • Developing health literacy in the general public with appropriate information and tools
Ensure a health sector that is responsive to the NCD challenges and improve the system of care	<ul style="list-style-type: none"> • Encouraging healthcare professionals to identify and address the risk factors of NCD, engaging early intervention through appropriate screening and counselling, and supporting patients for self-management
Strengthen and develop supportive health promoting legislation	<ul style="list-style-type: none"> • Tobacco control policy, and food labelling and safety

6.6 Government Strategies in Disease Prevention – Collection and Application of Data



Organisations for Disease Control

