



# **Principles of Life Insurance Underwriting**

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**September 19, 2014**

**The Gibraltar Life Insurance Co., Ltd.  
New Business Service Team**



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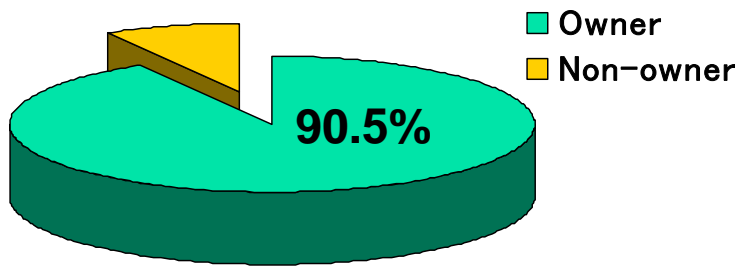
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# 1. Participation rate of life insurance in Japan

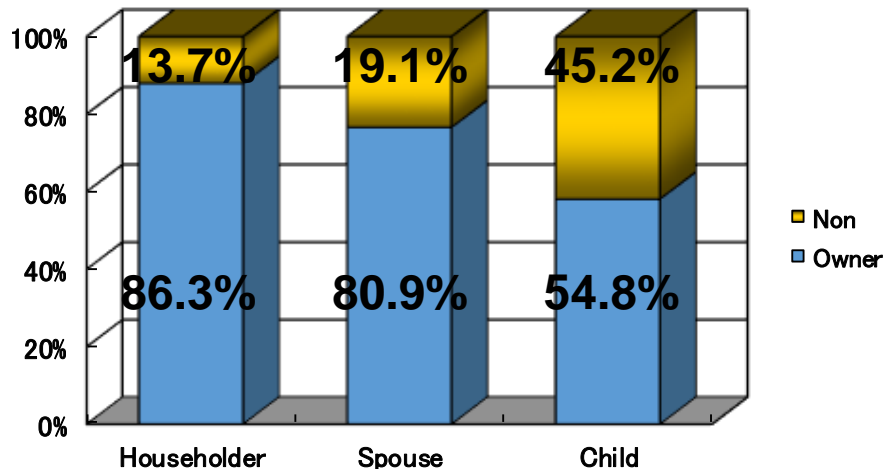
## Participation ratio of households in Japan



Average amount of total death claim by household:  
**¥ 27,630k**

Average number of policies by household:  
**4.1 policies**

Average amount of total annual premium by household:  
**¥ 416k**



Source: Japan Institute of Life Insurance:  
FY2012 national survey of actual conditions of life insurance



## 2. Cause of death in Japan (by age)

Age	1 <sup>st</sup> cause of death	2 <sup>nd</sup> cause of death	3 <sup>rd</sup> cause of death
- 4	Congenital malformation	Accident	Malignant neoplasm
- 9	Accident	Malignant neoplasm	Congenital malformation
- 14	Malignant neoplasm	Accident	Suicide
- 19	Suicide	Accident	Malignant neoplasm
- 24	Suicide	Accident	Malignant neoplasm
- 29	Suicide	Accident	Malignant neoplasm
- 34	Suicide	Malignant neoplasm	Accident
- 39	Suicide	Malignant neoplasm	Heart disease
- 44	Malignant neoplasm	Suicide	Heart disease
- 49	Malignant neoplasm	Suicide	Heart disease
- 54	Malignant neoplasm	Heart disease	Suicide
55 -	Malignant neoplasm	Heart disease	Pneumonia

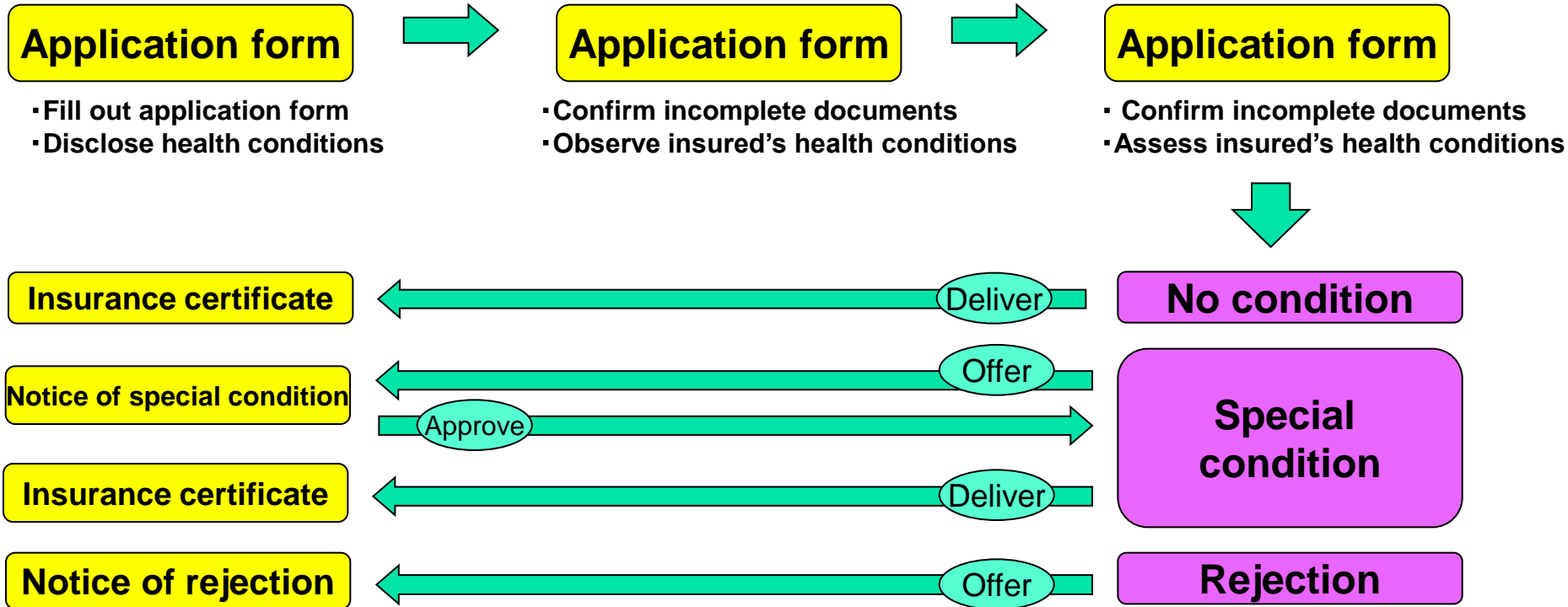
Source: "2012 Population Survey Report" issued by the Ministry of Welfare and Labour

# 3. Flow of life insurance examination

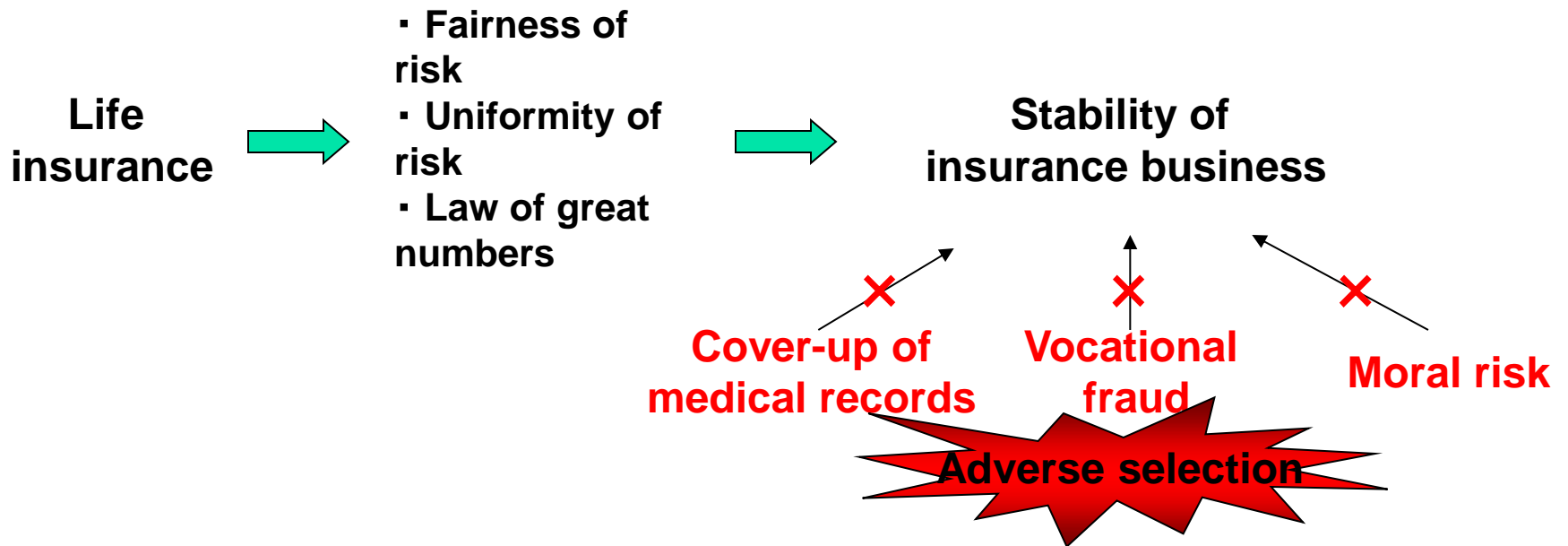
**Policyholder/ Insured**

**LC**

**HO**

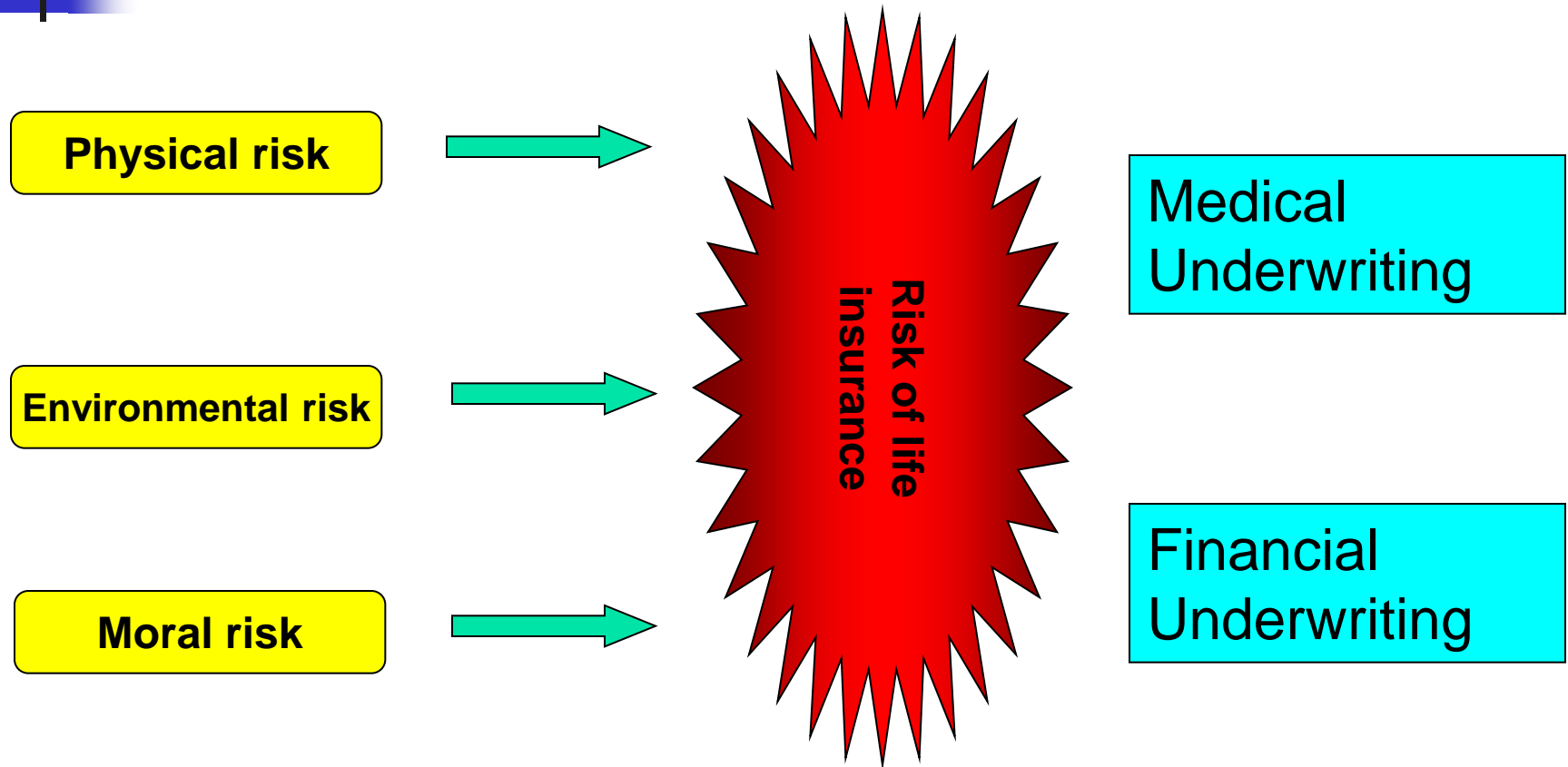


## 4. The necessity of risk selection



**In order to create an insured group without adverse selection, it's necessary to appropriately select risk.**

## 5. Types of risks





## 6. Types of moral risks

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### **Insurance murder**

**Method of murder is diversified: Making death look like a death of disease by using poison/ accidental death/ accident in a foreign country, etc.**

### **Illegal reception of benefit**

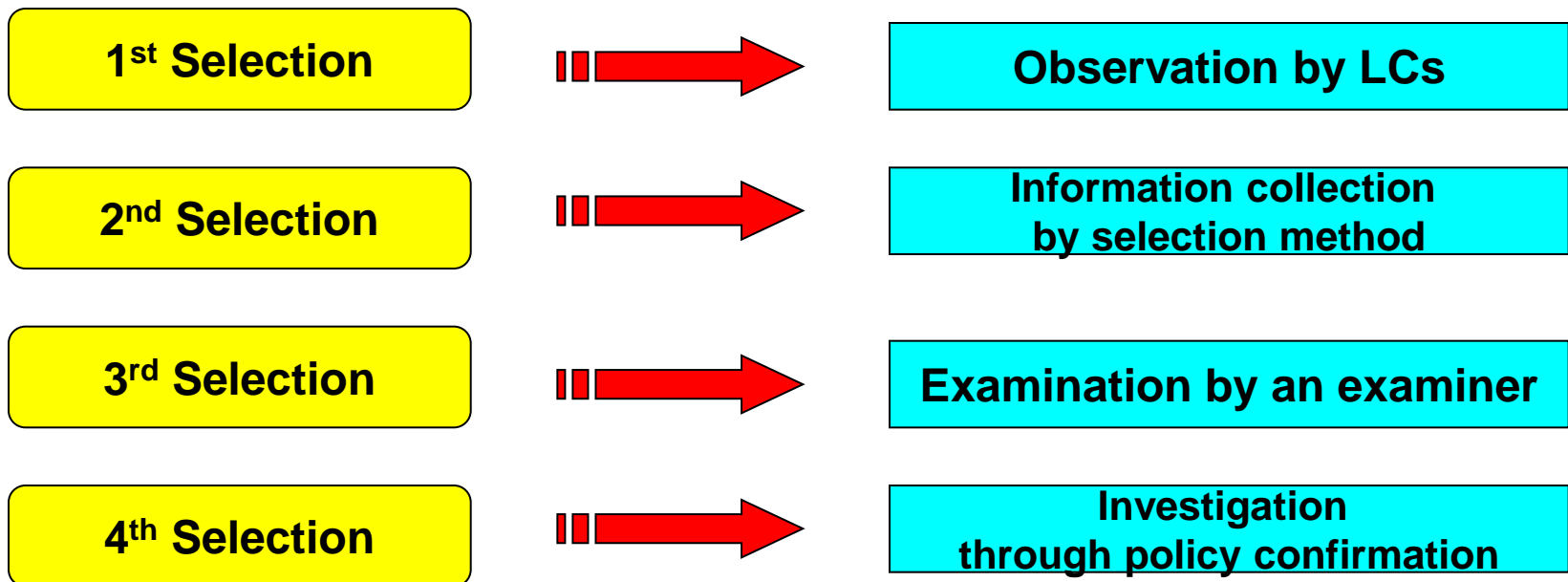
**Applications after a disease is diagnosed in health check and that of voluntary applications by direct mail or on the Internet increases adverse selection. Involvement of doctors cannot be denied in some cases.**

### **Suicide**

**Suicide exclusion was effective for 1 year in policy provisions of ordinary insurance. However, since there was no end to the number of insured who committed suicide, the suicide exclusion period was extended to 2 years.**



# 7. Risk selection method



## 8. Observation by LCs <First selection>

**1<sup>st</sup> Selection**



**Observation by LCs**

**Interview ··· Interview is LCs' responsibility and obligation**

**Observation ··· Observe complexion / expression / conversation / physical disorder / living conditions.**

**Question ··· Ask about health conditions such as actual symptom / anamnesis, occupation, and living conditions.**

# 9. Information collection by selection method <Second selection>

**2<sup>nd</sup> Selection**



**Information collection  
by selection method**

**Medical examination  
doctor handling**

**Medical check-up notification handling/  
thorough medical check-up handling**

**Health management  
certificate handling**

**Non-medical form handling**

# 10. Examination by an examiner <Third selection>

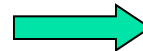
**3<sup>rd</sup> Selection**



**Examination by an examiner**

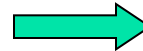
**Acceptance/ rejection of applied  
policies and finalization of conditions**

**Standard life  
Substandard life**



**Insurable  
risk**

**Postponable life  
Rejectable life**



**Non-insurable  
risk**

# 11. Investigation through policy confirmation <Forth selection>

**4<sup>th</sup> Selection**



**Investigation  
through policy confirmation**

**Policy confirmation**

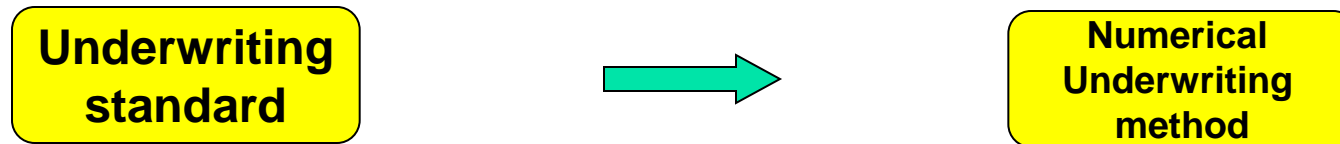
**Confirmation by those who lack interest in insurance sales.**

**Pre-issue policy confirmation**

**Post-issue policy confirmation**

## 12. Underwriting of physical risk

**Numerical Underwriting method** : This is a method to assess risks by scoring mortality indicators based on Underwriting standard.



### **Advantage**

- **Quantification of risks decreases examiners' subjective view.**

### **Disadvantage**

- **Combination of medical impairment requires a viewpoint of clinical medicine.**

## 13. Response to physical risk

Increasing type risk



Extra premium plan

Everlasting type risk



Extra premium plan

Decreasing type risk



Lien plan

### Main special conditions

- Extra premium plan ··· A plan to receive extra premium.
- Lien plan ··· A plan to reduce claim at a designated ratio for a certain period of time (up to 5 years)
- Particular Organ Exclusion Clause ··· A plan applied to hospitalization protection to exclude specified part from claim payment.



## 14. Underwriting of environmental risk

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### **Selection based on habit**

**Excessive drinking and routine use of drugs/ stimulant drugs are factors that increase mortality rate.**

### **Selection based on assets/ income**

**Assets and income are important factors to determine insurance amount. Policy with excessive insurance amount could contain medical adverse selection or moral hazard.**

### **Selection based on environment**

**Those who belong to anti-social forces/ those who have no regular employment tend to purchase a policy out of impure motives.**





# 15. Response to environmental risk

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## Limitation on insurance purchase based on contract rule

- Limitation on maximum insurance amount based on issue age
- Limitation on insurance amount based on income/ assets
- Limitation based on overseas traveling destination
- Third party recipient contract

## Limitation on insurance purchase based on vocation rule

## Limitation on insurance purchase

- Limitation on insurance amount by dangerous hobbies
- Money laundering



## 16. Underwriting of moral risk

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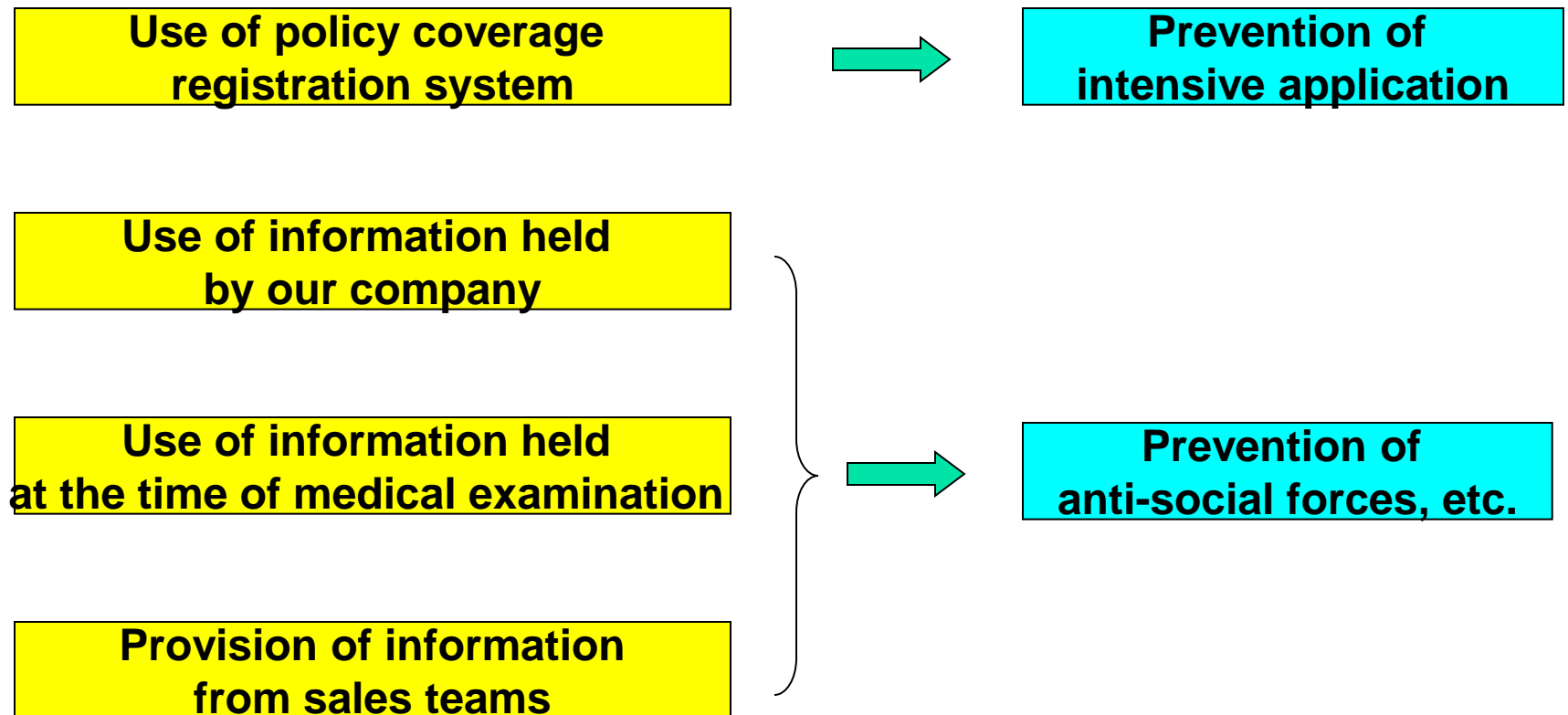
### **Moral risk:**

**The number of deliberate and intensive insurance frauds is increasing.**

### **Items of Note for Underwriting**

- (1) Motive for application . . . Does a policyholder voluntarily apply for a policy?**
- (2) Policy with excessive insurance amount . . . Is insurance amount excessive compared to age/ job/ income/ assets?**
- (3) Inverse rank policy . . . Is insurance amount excessive compared to primary wage-earners or representatives of company?**

# 17. Response to moral risk





## 18. Utilization of reinsurance

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### **Diversification of risks of high-value policies and policies with high physical risk**

#### **Types of reinsurance**

**Automatic ceding** . . . Policies with a certain amount and above are ceded at a certain ratio. This is applied mainly to high-value policies.

**Arbitrary ceding** . . . Mainly, policies that fall under highly substandard life are individually ceded.



## 19. Next issues (1)

### Influence of advanced medical technology

#### ➤ Genetic testing

• Japanese life insurance companies does not utilize genetic testing as examination materials.

A famous actress received preventive treatment based on genetic testing, which was recently in the news. Genetic testing has been rapidly recognized in the public. The number of those who use genetic testing may increase.

• If use of genetic testing is legally limited in Japan, like other countries, handling of genetic testing results may be an issue (whether the results fall under declaration, etc.).

In Japan, medical check-up notification and thorough medical check-up result are used as examination materials. If genetic testing becomes a required item of medical check-up, it may be needed to review the selection method.

• Preventive treatment based on genetic testing result is not currently considered to be qualified to receive benefit. In the future, however, this could be evolved into a trouble. Whether preventive treatment should be qualified to receive benefit may be examined.

#### ➤ Advanced treatment technique

As typified by application of induced pluripotent stem cell (IPS cell), life prognosis of diseases, which have been regarded as intractable disease, is expected to be improved as medical technology advances. Accordingly, life insurance companies may expand the underwriting scope. Examination techniques such as revision of the examination standards are required to be enhanced.



## 19. Next issues (2)

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### Response to aging society

As the population ages globally, the number of elderly people is also increasing every year in Japan.

Compared to young people, many elderly people have combined disorder and were rejected.

The issue is to improve examination technique to include elderly people in underwriting scope.

### Development of underwriters

Development of underwriters, professionals of underwriting, is essential for life insurance companies. It is ideal if medical examiners alone can do examination. It is, however, practically difficult. Therefore, an increasing number of life insurers utilize underwriters with specialized knowledge about examination.

“Underwriters Association of Japan” was recently established, and popularizes and develops the underwriter system. Although the underwriter system is not spread in the U.S. that much, it is essential to enhance underwriters’ technique to solve issues which life insurance will face in the future.