

Building Synergetic Linkage between Prevention, Compensation and Return-to-Work in Employment Injury Scheme in Asia and the Pacific

Challenges

Introduction

Employment Injury Insurance (EII), or Workers' Compensation Insurance, is an important part of the social security system and was originated in Germany in 1884. It can be said to be the most popular social insurance scheme and now exists in about 165 countries in the world. It has been proven that EII schemes have played a positive role in protecting workers' safety and health, maintaining sound industrial relations and in pooling risks arising from occupational accidents and diseases among enterprises.

Even so, it is also realized that the EII scheme is still facing challenges for its further development and application, especially in developing countries. As, in most of the developing countries in Asia, coverage of the scheme is still insufficient, especially for small enterprises and the excluded groups; Secondly, benefit provisions need further improvements, for example, including commuting accidents in the covered contingencies, converting the lump sum payments of invalidity and survivors' benefits into periodical pensions with proper indexation and the introduction of physical and vocational rehabilitation benefits, and thirdly, synergies with injury prevention are weak and return to work programme in EII scheme is still unfamiliar concept in Asia and Pacific region.

However, the extension of coverage of EII and enhancement of EII benefits level is on an incremental basis affected mostly by the each country's situation in the perspective of GDP, political and historical development, informal economy portion, demography, etc. But different from these two challenges, coverage and benefits level, the synergetic linkage between EII and prevention policy (OSH) could be accomplished within each country's own situation through building efficient mechanisms such as a mechanism for the collection and analysis of data on occupational injuries and diseases, provisions for collaboration with relevant insurance or social security schemes, coordination with other related national programmes, introduction of merit system in EII contribution collection, etc.

In addition, the return to work policy needs to be considered in EII scheme for facilitating injured workers to get back to work or society.

Systems

Preliminary analysis of employment injury scheme

The historical background of workers' compensation

The historical background of workers' compensation is different according to countries because of their difference in cultural, historical, political and economic perspective. However, the theoretical backgrounds might be grouped into mostly three as follows¹.

The first is the social compromise theory. Employees are compensated by the EII on the condition that they give up legal procedures whereas employers are required to pay the EII benefits to employees who suffer from industrial injuries or diseases whether they are negligent or not. The payment of the EII benefits excludes employers from the process of the civil trials. The second one is the least social cost theory. The non-fault liability under the EII is much more efficient in time and cost than the judicial system which focuses on who is responsible for the accidents. The third background is the occupational risk theory. In a broad sense, industrial accidents are inevitable under capitalism system and should be compensated regardless of who is responsible for the accidents. Thus the expenditure for industrial accidents should be considered as a part of production cost.

Typology of employment injury scheme

In these backgrounds, many nations created schemes for it and established agencies which implement the schemes. The mandate of the institutions, in concert with workers and employers, is to:

- Promote the prevention of workplace injury, illness and disease
- Rehabilitate those who are injured and provide timely return to work
- Provide fair compensation to replace workers' loss of wages while recovering from injuries
- Ensure sound financial management for a viable workers' compensation system

Prevention

Workplace accidents do not need to happen. Yet everyday people get injured on the job. Preventing injuries at work is everyone's business: employers, work-

¹ The theoretical background frame was from the ILO feasibility study on employment injury insurance scheme for Sri Lanka.

ers, health care providers, and the relevant institution. By working together, they can prevent workplace injury and disease.

The scheme works to prevent injuries and diseases by:

- Providing health and safety information to industry, workers and the general public
- Establishing standards and guidelines for occupational health and safety
- Conducting educational presentations
- Conducting work site inspections
- Collaborating with provincial and federal agencies and ministries on matters of occupational health and safety
- Offering access to prevention resources to workers and employers

Compensation

Although every effort is made for prevention of work injury and disease, it is inevitable to meet the workplace accidents or occupational disease in real life. Thus the EII scheme shall be prepared to compensate for injured workers and protect employers against liability in a fair and equitable way. In this regard, EII is funded by the employers through their assessments, known as premiums. Additional income is generated through investments. The revenue collected pays for the benefits and programmes of the workers' compensation system.

The scheme provides benefits in kind or in cash for workers at contingency caused by occupational injury and disease.

- Medical expenses and cost for medical rehabilitation
- Temporary incapacity cash benefits and nursing benefits
- Permanent incapacity cash benefits and constant attendance benefits
- Survivors benefits and funeral grants

Programme for return-to-work

Vocational rehabilitation scheme helps injured or sick workers return to work as soon as safely possible after a workplace injury or illness. The programmes are based on the philosophy that many workers can safely work as part of their recovery process. This benefits both the employer and the worker. Practically, for implementing return to work policy, both medical and vocational rehabilitation are provided for injured workers along with a variety of counseling method. This scheme is not established in most of developing countries in Asia and the Pacific. Based on the experience of developed nations, a return-to-work programme is facilitated by a team working together to help injured workers on their road to recovery. The team usually consists of the:

- Worker
- Medical professional/doctor

- Case manager in EII-implementing agency
- Employer
- Rehabilitation, transitional tasks, and whatever else is necessary for an injured worker to return safely to work may be part of a return-to-work programme.

There is a series of priorities for a successful return to work, which are:

- Doing the same job with current employer
- Doing a new job with current employer
- Doing a new job with a new employer
- If the first option is not possible, then turn to the second. If the second option is not possible, then turn to the third.

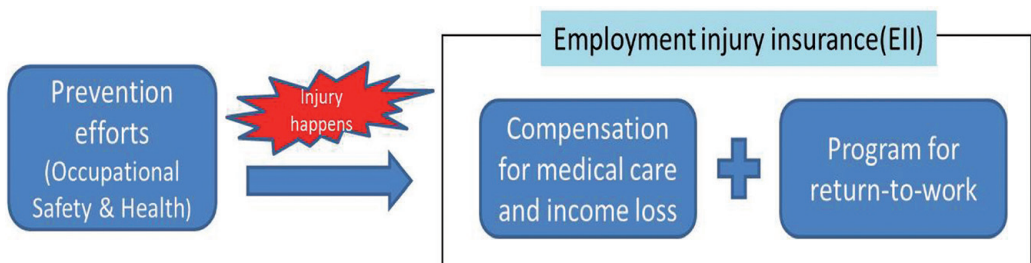
To facilitate the programme, developed countries have established vocational benefits in their own EII schemes as follows.

- Vocational training allowances and the cost of providing vocational training for those who need vocational training to be reemployed among those who have received permanent incapacity benefits or those who will obviously receive the benefits
- Return-to-work subsidy, work adaptation training costs, rehabilitation exercise costs which are paid if an employer retains, or carries out work adaptation training or a rehabilitation exercise programme for recipients of permanent incapacity benefits who returned to original business.

Outline of the employment injury scheme

To sum up the analysis of each component of the employment injury scheme, the whole picture of the system can be suggested in figure 1.

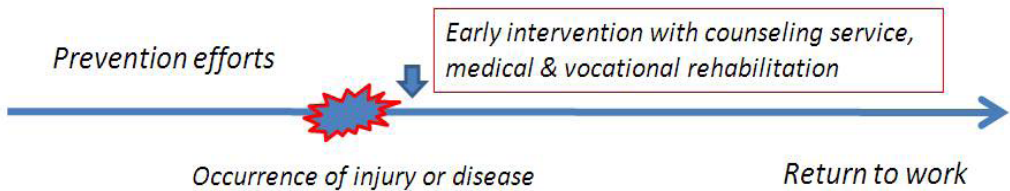
Figure 1. Social protection system for occupational injury and disease



Policy priority transition in current trend of employment injury scheme

Traditionally, EII was focused on compensation by in-kind benefits for medical treatment and in-cash benefits for income loss caused by occupational injury or disease. However, as operating experience was cumulated, the importance of prevention and rehabilitation has been felt. Prevention reduces the injury rate and medical rehabilitation reduces the invalidity degree. In addition, vocational rehabilitation facilitates return-to-work. These all efforts lead to contributing to financial stability of the scheme as well. Thus current trend of employment injury scheme can be showed in figure 2.

Figure 2. Current trend of employment injury scheme



Why is the linkage between OSH and workers' compensation scheme needed?

The necessity for coordination between EII and OSH

Compensation and prevention are logically inseparable. It is obvious, of course, that the most desirable way to reduce the cost of occupational injuries and disease is to reduce their incidence.

In the perspective of OSH, the collection and analysis of data on occupational accident and disease is very important. The result of them affects the directions of OSH-related activities such as providing health and safety information, education and offering prevention resources to stakeholders, establishing standard and guideline for OSH, conducting worksite inspections, etc. In accordance with reporting system from employers about their own workplace's occupational injury and disease, the number of them, the amount of compensation, the accident history, OSH-related department of institution could collect the data for OSH analysis. However, even though the reporting from employers is made on a periodical basis, it takes time to collect and analyze the data for OSH-related activities. In case reporting system does not function properly owing to employer's negligence, data is not enough to analyze and OSH institutions cannot access the data of workplaces not reporting. In addition, data from small and medium size enterprises (SMEs) is not easy to obtain.

From the view of EII, criteria for occupational disease is stipulated in its regulation but decision on whether each claim case is in the category of occupational disease covered by EII is not easy to make and takes long time to investigate in reality while accident cases are easier to identify as EII-covered category in comparison with the previous one. The data and expertise OSH agency has about correlation between exposed working conditions and worker's illness can provide EII agency with logical ground for determination on whether the case belongs to occupational disease which is also covered by EII scheme. Another thing is that the data will be helpful for making a plan for facilitating the injured workers to return to work. Considering his or her physical condition and each workplace's working surrounding, the case manager can provide appropriate service of return-to-work for the workers with incapacity. In addition, a merit system in premium-collection of EII can be an incentive for employers to give more attention to their own workplaces' safety². Also the some portion of EII fund can be allocated for implementing OSH-related policies, which is found in the evidence of many EII-implementing countries.

Based on the necessities examined earlier, the linkage between EII and OSH can provide synergetic effect through coordination among relevant institutions, introduction of merit system in EII premium collection and allocation of some portion of EII fund for OSH policy. Coordination would be more facilitated in case EII and OSH are implemented in one single organization and data on both schemes are shared on a real time basis through the information technology network.

Through the linkage, OSH activities will enhance the level of each workplace's effort for safety and prevention of occupational accident and disease, which in result, contributes to the stable and sound management of EII fund by reducing the expenditure of the fund. In addition, this can lead to decrease of EII premium rate of the related industry in case of differential rating system and related workplace in case of merit rating system, which one of main stakeholders in EII, the employers are also satisfied with the result of the linkage between EII and OSH. It is needless to say that more employers will feel incentive to join the EII scheme and also pay more attention to prevention against occupational accident and disease in their own workplaces and safety of their workers.

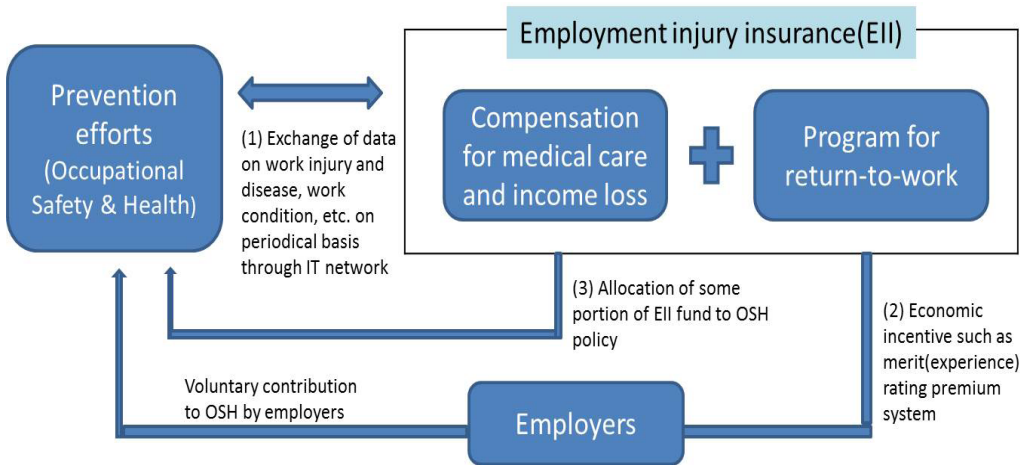
In this regard, the linkage between the two will be finally helpful for employers and workers.

² There are many researches on merit rating system (experience rating system). However, the results are divided into pros and cons of the system. Some argued that decrease of injury rate affected by merit rate has no relevance with fatal injury claims and suppress claims for cases considered to be not severe. Other criticism is that they are mainly suitable for larger employers and a significant proportion of smaller employers are not affected and there is a large lag time between injury and financial penalty, which means that the employer probably does not heed the message of the penalty. Thus instead of relying on merit rating system only, it is recommended to try to combine it with OSH efforts to achieve the increase of prevention of occupational accidents and disease and sound finance stability.

The outline of linkage between EII and OSH

The model for synergetic linkage between EII and OSH can be suggested in figure 3.

Figure 3. The model for synergetic linkage between EII and OSH



Solutions

Relation between EII financial stability, prevention and return to work programme in theoretical and evidence-based perspective

The successful operation of EII somewhat relies on its financial management in that higher contribution rate caused by steeply increasing injury rate and increased benefits amount will be burdensome to employers paying the scheme by hindering cash flow in business operation and its poor management might lead to insolvency in paying benefits. In this context, it would be desirable to examine the relation among EII finance, prevention and return to work programmes in both theoretical and evidence-based perspective.

Theoretical perspective on EII finance, prevention and return to work

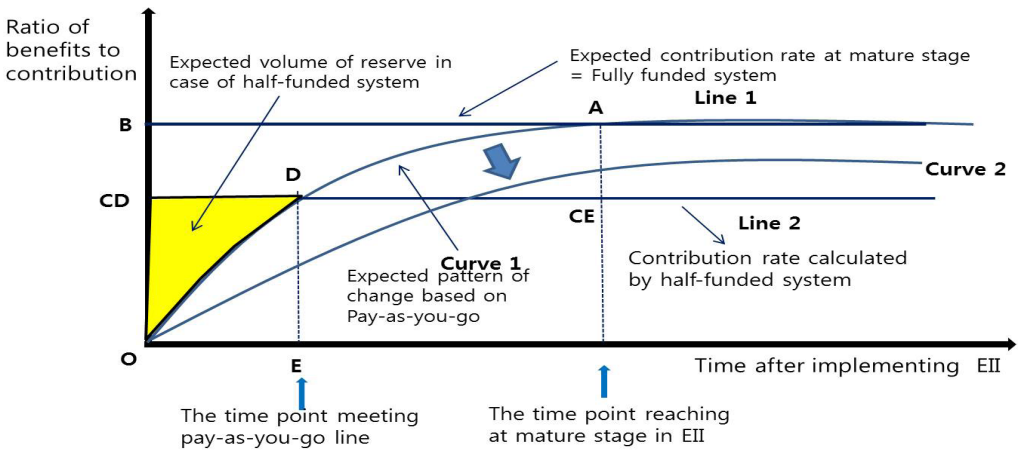
Financial management method of employment injury insurance

The EII not only contains medical care benefits for industrial injuries and diseases but also cash benefits for partial or total economic loss. Basically, there

are two ways to finance EII. One is the so-called “Pay-As-You-Go” or PAYG system and the other is the “funded system”. Thus, financing method of the EII is either “Pay-As-You-Go”, which does not have a reserve fund, or a funded system, which has a large reserve fund. The two systems both have their pros and cons.

If the PAYG system is applied to operate EII, contribution rates have to be raised every year as expenditures increase. This might turn out to be a financial burden to the employers. However, contribution rate should be high from the beginning if the full funded system is adopted, which is also unrealistic in especially low and middle income countries. This is why it is thought to be appropriate to opt for the “half-funded system”, not the fully-funded system. The “half-funded system” takes advantages of both mitigating the financial burden of employers. As just mentioned, there are two ways to finance EII; the Pay-As-You-Go (PAYG) system and the funded system. However, these two methods are two theoretical extremes and generally mixed schemes (half-funded system) are more common in reality. The mixed scheme allocates part of the payments in a reserve fund and has the merits of the PAYG and the funded systems.

Figure 4. Mixed finance scheme of EII



First of all, the financial system of EII will be dealt with as depicted in Figure 4. When EII is introduced, the benefits expenditure is increased until the programme comes to mature assuming that there is no change in the rate of industrial accidents. If a pure PAYG system is introduced, the contribution revenue will be determined based on the expected expenditure meaning that it will increase until the program matures. On the other hand, the fully-funded scheme determines contribution revenue considering the expenditures at maturity from the beginning allowing for a constant revenue stream throughout. Therefore, if the fully-funded method is adopted, funds are accumulated as much as the

triangle OBA having similar characteristics as a reserve fund. The existence of a large fund can be a cornerstone for the development of the system, but it can also have downsides as it may be a cause for disputes among the parties involved. This is why there are a large number of countries using the mixed system, instead of the PAYG or fully-funded systems. The mixed system can be set up in various ways, but in general, it is set up in one of the following two methods. The first method fixes the contribution rate at a level lower than the fully-funded method in the beginning and increases the rate at once when the programme matures (CE to A). The second method is the same as the first except that it increases the contribution rate annually (CD to D and finally to A). The former induces more shock to the system by raising the rates at once, but it is easier to implement administratively. The latter, on the other hand, causes less stress to the system while it requires administrative complexity of having to increase the rate every year.

Relation between EII financial stability, prevention and return to work programmes

Medical treatment and cash compensation for the occupational injured employees are not the only purpose of EII. EII consists of prevention, medical treatment and compensation, and rehabilitation for return to work. Accordingly, prevention and rehabilitation are as important as medical treatment and compensation. Most of countries which operate EII have recently expanded the proportion of prevention and rehabilitation. Prevention decreases the number of occupational injury itself, causing reduction in EII expenditure. Rehabilitation helps to mitigate the degree of disability of the injured employees, increasing their job return rate, which can help stabilize EII finance.

When it comes to introducing prevention and rehabilitation, it is important to choose the appropriate point of time to introduce them. To maximize their effect, both require humane and physical infrastructure above a certain degree and, otherwise, it would cause side effects. So considering the introduction of prevention and rehabilitation in EII scheme, it is necessary to consider additional financial sources. If we apply this justification in the figure 3, it is necessary to find time to introduce active prevention policy and rehabilitation within the period between O and E because there can be reserve cumulated as much as triangle O/D/CD. Some portion from the reserve can be used for prevention and rehabilitation. The result of investment on the both might not be recognized in the short term but will contribute to lower injury rate and benefits cost in the long term, which leads to EII financial stability and can be depicted as Curve 1 moving closer to Curve 2 in Figure 3.

Evidence based relation between EII financial stability, prevention and return to work programme

Traditionally, EII was focused on providing occupationally injured and sick workers with compensation for loss income by in-cash benefits and medical treatment by in-kind benefits. Also survivors are entitled to benefits for loss income of dead worker in fatal cases. However, as the experience of scheme operation was cumulated, the importance of prevention and rehabilitation has been felt. The prevention led to lowering injury rate and rehabilitation contributed to alleviating invalidity degree of injured workers on medical side and facilitating them to return to work or society. Without these efforts, EII is rather cash transfer scheme and is not the ultimate goal of the scheme. In addition, if injury rate gets higher and average period of medical treatment prolonged by year, it will deteriorate EII finance and lead to raising contribution rate, which causes mistrust in the scheme and resistance from employers. Furthermore, the more injured workers fail to return to work, the worse impact on the society it puts by instability of household, loss of skilled workers at enterprises and raising unemployment rate in national economy. In this context, many nations, especially developed countries, have experience in introducing active prevention and rehabilitation programmes in their own EII scheme and accomplishing the scheme's financial stability, national trust in the EII scheme³. As one of the examples, Korean case will be given as evidence of the relation between EII financial stability, prevention and return to work programme as follows.

The evidence of South Korea on the relation among prevention, EII finance, RTW

History of development of employment injury scheme in South Korea

After Korea got independent from Japan in 1945, it has experienced a series of political turbulence such as under US trusteeship for three years (1945 to 1948), establishment of South Korean government in 1948, Korean civil war between north and south for three years (1950 to 1953), etc. During the trusteeship period, settling workers' compensation issue by collective bargaining has been encouraged. In 1953 during the period of Korean war, labour standard law

³ In Germany, 8.5 per cent of total premium revenue was spent on prevention (EUR 24.6 per full-time worker). Other cases are 7.7 per cent (NZD 24 per worker) in New Zealand, 4.8 per cent (CAD 33) in Canada (Ontario). As for rehabilitation, in Germany, it is focused on rehabilitation in policy perspective by stipulating in Social Security Act (article 26 of chapter 7) that benefits for medical treatment and rehabilitation are preferred to pension. In New Zealand, the Accident Compensation Corporation has changed its policy objective from compensation-oriented to rehabilitation-oriented in 1992. As a result, more expenditure was spent on rehabilitation, 10 billion dollars than compensation, 800 million dollars in 2003, for instance.

was enacted and promulgated and employer liability on occupational accident or disease was stipulated. However, its actual implementation was different because of war situation, etc. In addition, regulation related with labour inspector who is needed for the law implementation was promulgated in 1961, eight years later. Thus the right for workers' compensation has not been secured during this period.

In early 1960s, the national reconstruction and economic development was given national priority and also establishment of social security system was examined. Although the necessity of unemployment insurance had more spotlight from the public opinion and there was opposition against introduction of EII on the ground that labour standard law already existed and national income per capital was lower than USD 100, etc. EII was introduced in 1964. It was based on the background that employer liability only under labour standard law would not secure workers' compensation right which was expected to increase with industrialization. Since 1964, Korean EII has developed on each area including prevention. In addition, currently the Ministry of Employment and Labor supervises employment injury scheme as a whole and Korea Workers' Compensation & Welfare Service (COMWEL) implements employment injury insurance and Korea Occupational Safety & Health Agency (KOSHA) does prevention programmes excluding labour inspection. The historical development of each area is as follows.

On coverage side, it was applied to workplaces with more than 500 workers in mining and manufacturing sectors at the beginning but the legal coverage has been expanded incrementally as below table 1.

Table 1. Extension of legal coverage of EII in South Korea (until 2004)

Year	Extension of coverage
1964	- Mining, Manufacturing - Workplaces \geq 500 workers
1965	- Electricity, gas, transportation, storage included - Workplaces \geq 200
1966-1969	- Workplaces \geq 150 in 1966 - Workplaces \geq 100 in 1967 - Workplaces \geq 50 in 1968 - Construction (\geq 20 million won), water, sanitary facility, commercial, communication, service included in 1969
1973	- Workplaces \geq 30 in 1972 - Workplaces \geq 16 in 1973 - Total construction cost \geq 10 million won in construction
1976	- Workplaces \geq 5 in chemical, refinery, coal, rubber, plastic industry of mining & manufacturing industry

1982	- Workplaces ≥ 10 - Construction size ≥ 40 million won
1983	- Logging size $\geq 1,700\text{m}^2$
1986	- Workplaces ≥ 5 in 14 industries
1987	- Workplaces ≥ 5 in 20 industries
1988	- Logging size $\geq 800\text{m}^2$ - Workplaces ≥ 5 in 16 industries
1991	- Workplaces ≥ 10 in some industries with low risk
1992	- Workplaces ≥ 5 in some industries with low risk
1996	- Workplaces ≥ 5 in education service, health & social welfare service, research & development industry
1998	- Workplaces ≥ 5 and finance & insurance industry included - Voluntary coverage to overseas dispatcher - Compulsory coverage to on-site practitioner in factory
2000	- Workplaces ≥ 1 [≥ 5 in agriculture, forest (excluding logging), fishery, shooting] - Voluntary coverage to employers with less than 50 workers
2004	- Voluntary coverage to some self-employed

On the benefit side, the benefit level has been enhanced step by step since introduction of EII scheme. Instead of describing detailed history of benefit level improvement, distinctive parts in the development are summarized as table 2.

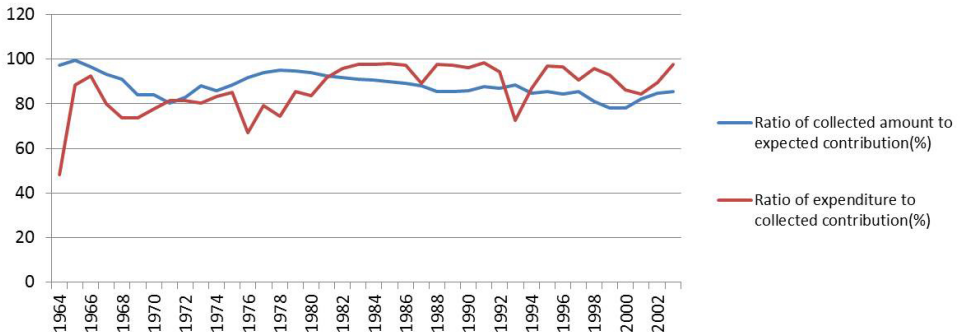
Table 2. The distinctive parts in benefits enhancement in EII of South Korea

Category	Year	Contents
Waiting period	1964	10 days
	1971	7 days
	1982	3 days
Replacement rate of temporary disability benefits	1964	60% of previous average income
	1989	70% of previous average income

Permanent disability benefits	1964	Disability degree was grouped into 10 and payment method was lump sum
	1971	Disability degree was grouped into 14 and disabled workers with 1 st to 3 rd invalidity degree could choose payment method among lump sum or pension (later it was changed into pension only)
	1981	Disabled workers with 4 th to 7 th invalidity degree could choose payment method among lump sum or pension
	1989	Disabled workers with 1 st to 7 th invalidity degree could receive advance payment in pension which is worth 1 to 4 year pension
Survivor benefits	1964	It was paid in lump sum of 1,000 days of previous average income of dead worker
	1971	Pension was introduced and it was proportional to the number of the number of dependants on the dead breadwinner (up to 4 survivors). Either pension or lump sum could be chosen (later it was changed into pension only)
	1986	The payment of difference between lump sum and pension in case of death of pensioner was introduced
	1989	The amount of lump sum was raised to 1,300 days of previous average income of dead worker

On the financial side, Korean EII scheme introduced differential rating system instead of uniform rating one. Contribution to the scheme is borne by employers only. In 1969, experience rating system was introduced as Bonus-Malus system with the rating adjustment range from -30% to +30% then the adjustment range has been extended to 40% in 1986 and 50% in 1997. Also as shown in the figure 5, the financial status has been stable because red line has kept under 100% which means that expenditure has been constantly under collected contribution each year.

Figure 5. Ratio of expenditure to collected contribution by year in Korean EII



(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

On the prevention side, current occupational safety and health policy originated from the stipulation of occupational safety and health act in December, 1981 and its decree and sub decree in 1983. Before the enactment and implementation of OSH act, decree and sub decree, Korean employment injury scheme has been focused on compensation after industrial accident or disease by EII act, etc. However, after OSH act implementation, active prevention policies have been planned and implemented. In 1960s and 1970s, OSH policy has been implemented mainly by labour inspection even though economic incentive measure such as experience rating system was introduced in 1969. Thus since 1980s, other active OSH policies for maintaining and improving the safety and health conditions at work through the efficient implementation of projects such as research and development, promotion of industrial accident prevention technologies, provision of technical assistance and training on occupational safety and health, inspection on dangerous facilities and equipment, etc. was possible. In addition, what made it possible practically is attributed to allocation of some portion of EII fund into OSH policy since 1987 and establishment of Korea Occupational and Safety Agency (KOSHA) in 1987 and the Occupational Safety Bureau within the Ministry of Employment and Labor in January, 1989. The chronological summary of related events until 2004 is shown in table 3.

Table 3. History of prevention resource from EII fund in South Korea

Year	History of regulation revision relating to EII fund for prevention budget
1964	Enactment of EII special accounting law on 6 DEC 1963
1980	1st revision of EII special accounting law on 28 DEC 1979 - To keep more than 3% of preparatory budget for dealing with big scale accident rapidly
1982	2nd revision of EII special accounting law on 17 DEC 1981 - To transit reserve account into fund system - To be able to implement active prevention programme
1987	Establishment of KOSHA in 1987 3rd revision of EII special accounting law on 28 NOV 1987 - To be able to transfer a portion of the account to KOSHA operating budget, which means obtaining prevention activities budget for KOSHA
1989	2.1~2.9% of yearly expenditure of EII were transferred to KOSHA prevention budget from 1988 to 1990 Establishment of the Occupational Safety Bureau within the Ministry of Employment and Labor in January, 1989
1990	1st revision of OSH law on 13 JAN 1990 - To stipulate resource for OSH by establishing prevention fund (article 53) and transfer more than 5% of expenditure budget based on EII special accounting law for the resource
1991	Later, from 1991 to 2003 4.5~11.9% of expenditure budget of EII fund was transferred to OSH fund yearly
1992	The Occupational Health Research Institute and the Occupational Safety Research Institute were established within KOSHA, preparing the basic framework for the planning and implementation OSH policies in the 1990s.
1995	2nd revision of OSH law on 22 DEC 1994 - To transfer more than 5% of expenditure budget of EII to prevention fund for activities specified in article 81 of EII law and to set the transferred budget in expenditure balance within the range of 3% by government
1996	More than 10% on prevention from EII during period from 1995 to 1997 was caused by the prevention special programme which was focused on decreasing occupational accidents in small and medium enterprises noticeably
2002	Revision of Fund management basic law, OSH law and EII law on 31 DEC 2001 - To incorporate two funds (OSH fund and EII fund) into “Workers’ compensation and prevention fund” - To establish operating plan for “workers’ compensation and prevention fund” inclusive of plan for resource and operation of prevention - To transfer more than 5% of expenditure budget of EII fund to prevention fund for activities specified in article 81 of EII law and to set the transferred budget in expenditure balance within the range of 3% by government

2004	Revision of EII law on 29 JAN 2004 - Arrange more than 8% of expenditure of “workers’ compensation and prevention fund” for prevention resource in account
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On the return-to-work side, the active rehabilitation programme for return to work started from 2001 after the importance of rehabilitation and return to work clearly stipulated in revision of EII act in 2000 through continuous investment on three rehabilitation areas such as medical, vocational and society rehabilitation even though there had existed rehabilitation programme before. This was motivated by the fact that in spite of continuous prevention effort, every year about 90 thousand workers are injured or sick occupationally and about 37 thousand workers get disabled and this tendency will affect EII financial stability and on individual side, injured workers who fail to return to work will face income decrease and family problems such as divorce. The development of rehabilitation for return to work is as follows.

Table 4. The development of rehabilitation for return to work in South Korea

2000	Revision of EII act to stipulate the rehabilitation and return to work for occupationally injured or sick workers was made in December 1999 and implemented in 2000
2001–2005	The five-year plan for rehabilitation in EII scheme was implemented
2006–2008	The first mid-term development plan for rehabilitation in EII scheme was implemented. The division of compensation team into three groups such as first investigation team of injury of disease, benefit payment team, medical & vocational service team was made on technical side. On-site counselling for patients was put an importance during the period.
2006	The role of EII hospitals in facilitating medical rehabilitation was examined
2008	Revision of EII act to stipulate conversion of rehabilitation therapy and vocational rehabilitation cost into legal benefit of EII in DEC 2007 and implemented in 2008
2009–2011	The second mid-term development plan for rehabilitation in EII scheme was implemented

What is noticeable is that vocational rehabilitation benefits such as vocational training allowance, the training cost, RTW subsidy, work adaptation costs, rehabilitation exercise costs have been changed to legal benefits as of 1 July 2008. It means these benefits had been provided within the available budget before. So the service had depended on the budget availability and had not secured sustainable service delivery to target groups. However from July 2008, the problem was

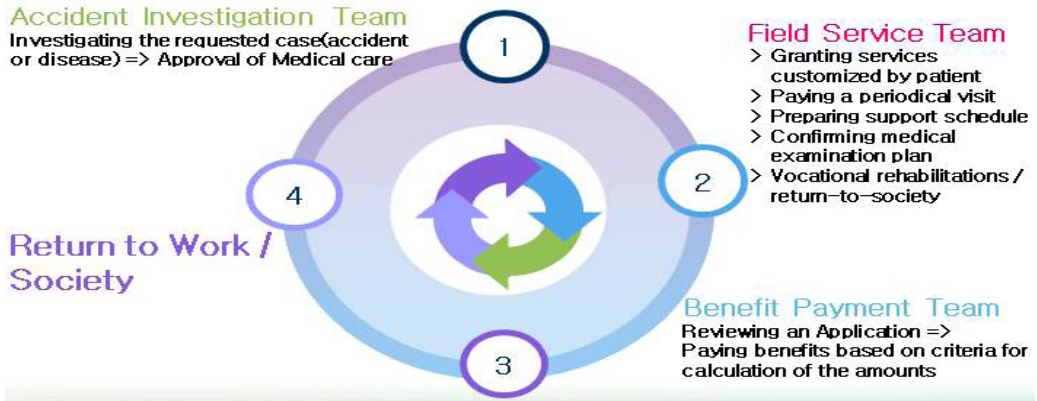
solved. It was stipulated that vocational rehabilitation training cost is provided in kind and vocational training allowance (100% of minimum wage) is provided during the training and subsidy for return to work is provided for employers for maximum 12 months and cost for workplace adaptation training & sport rehabilitation is provided for employers for maximum 3 months. In addition, as rehabilitation therapy was included in medical benefits after the revision, medical treatment cost related medical rehabilitation such as physical therapy, psychological therapy, vocational therapy, language therapy, aqua sport therapy, etc. came to be reflected in medical cost evaluation in EII.

When we think about RTW in Korea, we should consider both rehabilitation and welfare service for stability of injured workers' lives. About welfare service, workers' compensation insurer (Korea Workers' Compensation and Welfare Service, COMWEL in abbreviation) provides loan programme, etc. for injured workers with invalidity. Also early intervention with counselling during medical treatment or rehabilitation is provided. Speaking more in detail, the rehabilitation and welfare services are summarized as follows.

COMWEL is providing various rehabilitation programs. Among them are psychological counselling services and rehabilitation planning suitable for each individual during medical care and vocational training, provision of job information and job placement services after the completion of medical care, all of which are aimed at facilitating the accident victims' earlier return to work. In addition, financial support of up to 6 million KRW per trainee is provided to those participating in training by private training institutions. The leasing of shop space for up to 100 million KRW and free business consulting services for individuals wishing to start their own businesses are also provided as part of various support programs.

In the perspective of administrative organization, COMWEL started to hire staff specialized in vocational counselling from 2001. In addition, for the better delivery of service by coordinating compensation and rehabilitation for return to work, in the second half of 2005, COMWEL changed the organizational structure of compensation department in each field office and provided services as shown in figure 6. Later, it began to merge field service team and benefit payment team into medical & rehabilitation team and produce case managers for return to work and job coordinators by educating its staff through the relevant training contract with universities for provide individually tailored rehabilitation service.

Figure 6. The organizational reform in EII compensation department of branch office in 2005 in South Korea



COMWEL is also offering a wide-range of programs to injured workers and their children, including scholarships and loans for college education as well as the “Youth Camp” program for high school students from vulnerable families, such as families of deceased workers, workers with disability (Grades 1-7, severe and upper medium degree of invalidity) and beneficiaries of the injury-disease compensation annuity, to help them improve performance in school and grow into sound adults.

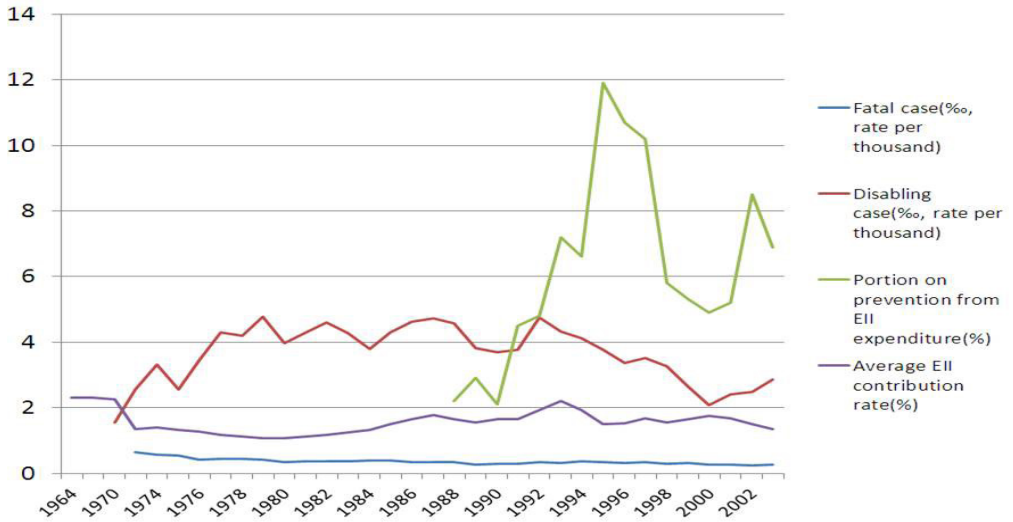
Evidence based relation between EII financial stability and prevention

As shown in table 3, continuous allocation of some portion of EII fund was made since 1988 after third revision of EII special accounting law on 28 NOV 1987 and establishment of KOSHA in 1987. Thus we can understand active prevention programme started from 1988. In this context, it is good to examine the changes of fatal case, disabling case, portion on prevention from EII expenditure and average EII contribution rate, especially from the year of 1988. The changes of the four indicators until 2004 are shown in figure 6.

As mentioned in table 3, KOSHA was established in 1987 and the third revision of EII special accounting law was made on 28 NOV 1987 to transfer a portion of the account to KOSHA operating budget, which means obtaining prevention activities budget for KOSHA. As a result, 2.1~2.9% of yearly expenditure of EII were transferred to KOSHA prevention budget from 1988 to 1990 as shown in figure 7. Later, first revision of OSH act was made on 13 JAN 1990 to stipulate resource for OSH by establishing prevention fund (article 53) and transfer more than 5% of expenditure budget based on EII special accounting

law for the resource. From 1991 to 2003, 4.5~11.9% of expenditure budget of EII fund was transferred to OSH fund yearly as shown in figure 7. In addition, more than 10 % on prevention from EII expenditure during period from 1995 to 1997 was caused by the prevention special programme which was focused on decreasing occupational accidents in small and medium enterprises noticeably.

Figure 7. Relations between injury rate, EII contribution rate and portion on prevention from EII expenditure by year in South Korea

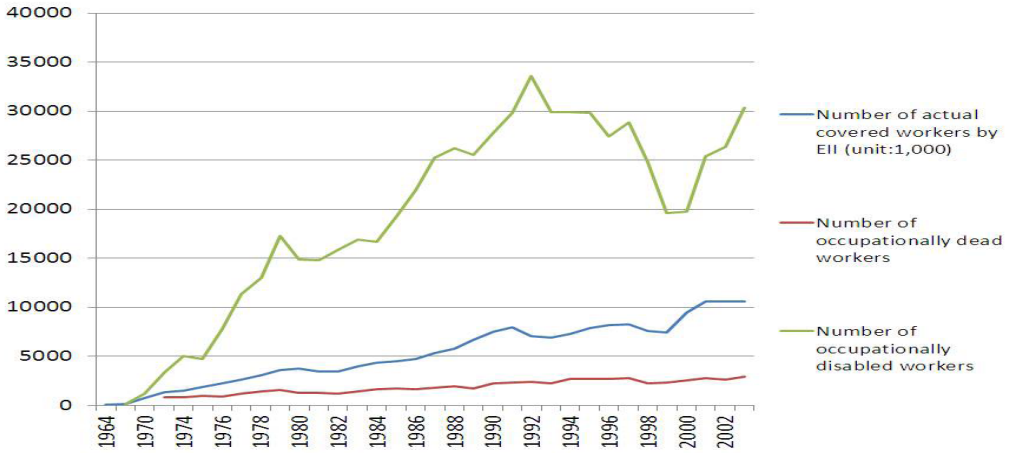


(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

In this backstops, we can figure out that from 1992, four years after investment on prevention from EII fund, the disabling case rate continued to decrease noticeably and fatal case rate has been under control in spite of comparatively not plummeting and average contribution rate has been within the limited range.

As shown in figure 8, compared to sharp increase of the number of actual covered workers by EII, the number of occupationally injured or dead workers has been steadily increasing. In figure 7, it is guessed that decrease of covered workers were due to Korean economic downturn around the period of financial crisis in 1998.

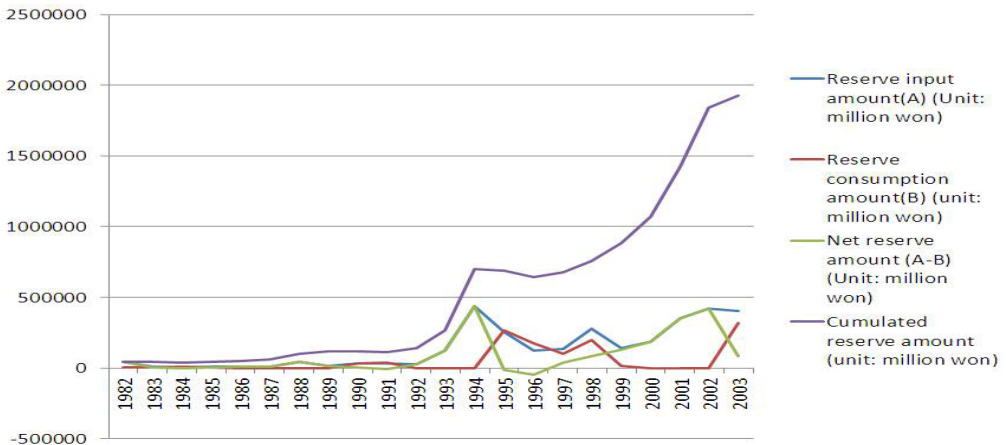
Figure 8. The number of actually covered worker by EII, occupationally injured or dead workers by year in South Korea



(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

Also, shown in figure 9, the reserve increased sharply some years after active prevention policy started because net reserve, difference between reserve input and reserve consumption increased.

Figure 9. Changes in reserve of EII fund by year in South Korea



(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

Reserve in EII fund plays positive role in financial stability in that it prevents fund insolvency for paying benefits for beneficiaries and especially in economic downturn, it controls the contribution rate by keeping its rate under certain range, which alleviate employers financial burden of paying the contribution to EII fund. Also financial stability can be found in figure 5.

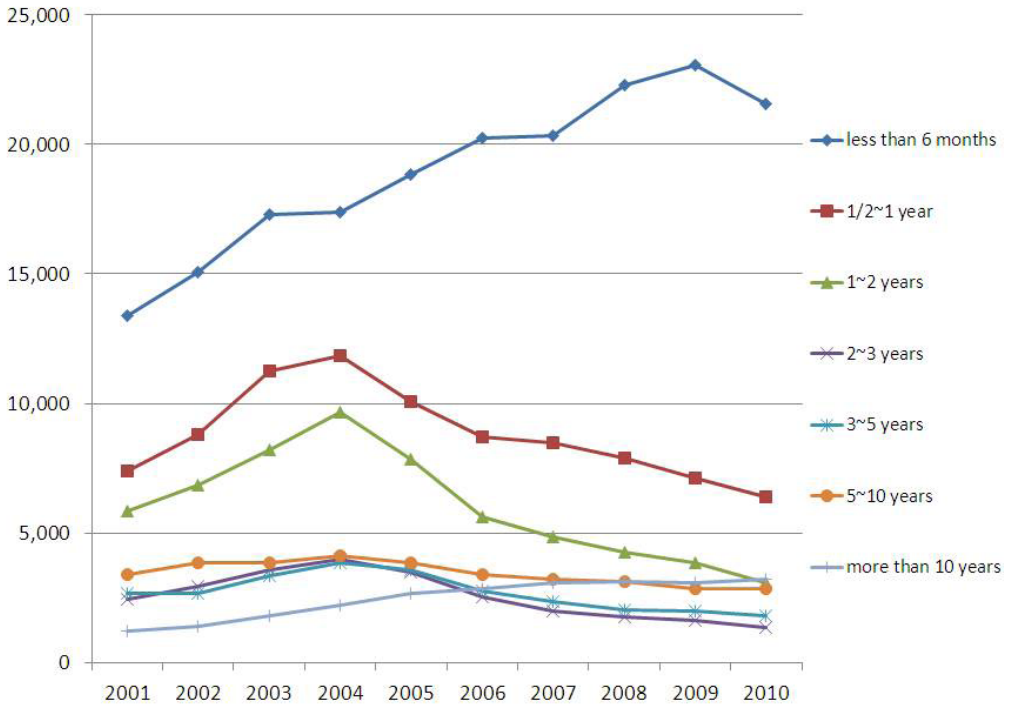
In conclusion, the investment on prevention from EII fund enabled active prevention programmes to be implemented and following active prevention efforts contributed to financial stability of EII fund by reducing injury rate, keeping EII contribution within certain range, etc.

Evidence based relation between EII financial stability and return to work programme

In South Korea, the active policy for return to work started in 2001 as mentioned before. Theoretically, return to work programme is implemented by intervening in initial stage of medical treatment of injured workers, which means that the related service is provided from the starting point of rehabilitation just after intensive treatment such as operation and following intensive care. Better medical rehabilitation reduces the invalidity degree and medical treatment period. Counseling and vocation rehabilitation raise the motivation of injured workers to return to same job or different job at same workplaces or other workplaces, which contributed to raise the rate of return to work. As the result of these all efforts lead to EII financial stability by reducing cash benefits for temporary and permanent disability and in-kind benefits for medical treatment. In this context, it would be good to examine the average medical treatment period, average days for return to work, rate of return to work, degree of subjective satisfaction degree of EII beneficiaries, financial balance between revenue and expenditure in EII, etc.

As shown in figure 10, the patients with medical period 1/2 to 10 years have decreased since 2004. About the number of patients with medical period less than six months, it continued to increase and decreased in 2010 but it is thought to be natural because the newly injured workers happen every year. About patients more than 10 years are in some part ones needing continuous intensive medical care but its increase rate is very low. Thus the general decrease of other patients with medical period 1/2 to 10 years since 2004 is very noticeable and can be interpreted as an achievement of return to work programme starting since 2001.

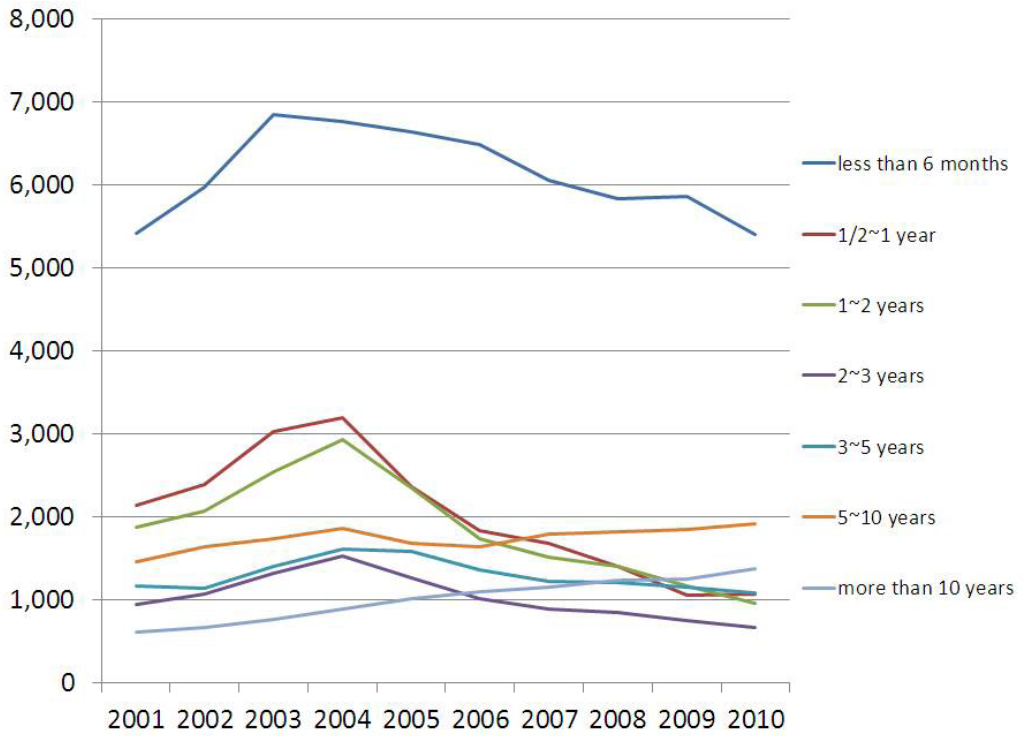
Figure 10. The total number of patients by year and medical period in EII of South Korea



(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

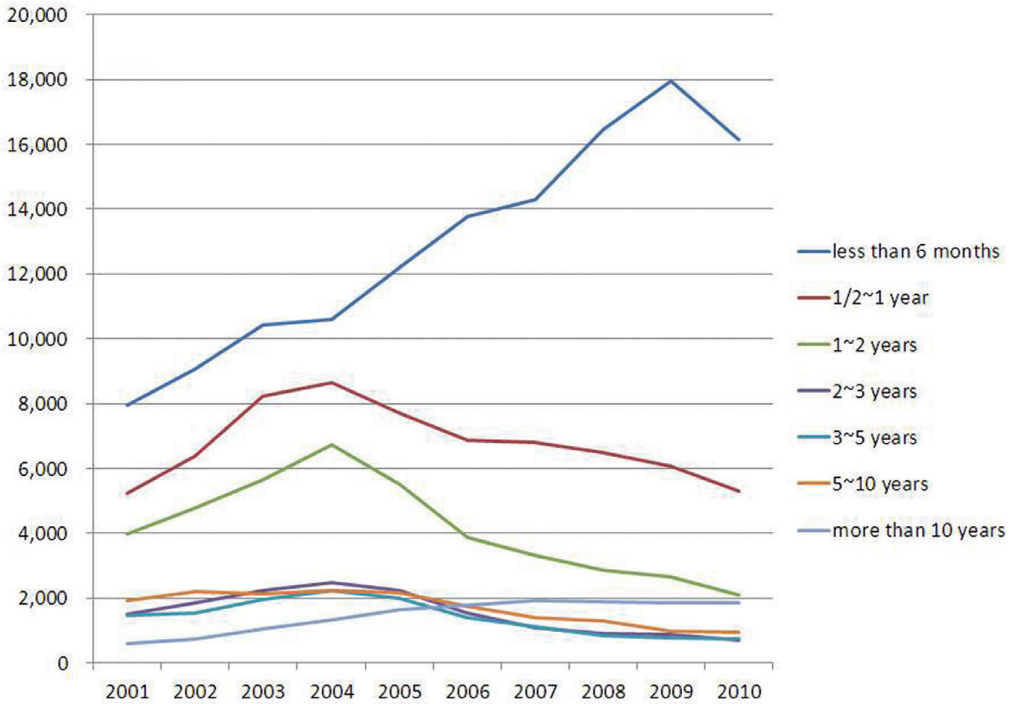
In addition, as shown in figure 11 and 12, the number of inpatients with medical period less than six months continued to decrease since 2003 while one of outpatients increased. This means that return to work programme might motivate more injured workers to think of their plan of restarting work by stopping unnecessary in-hospital treatment and carrying out outpatient treatment and pursuit of jobs. Also it can reduce the medical benefits because inpatients need more medical cost.

Figure 11. The number of inpatients by year and medical period in EII of South Korea



(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

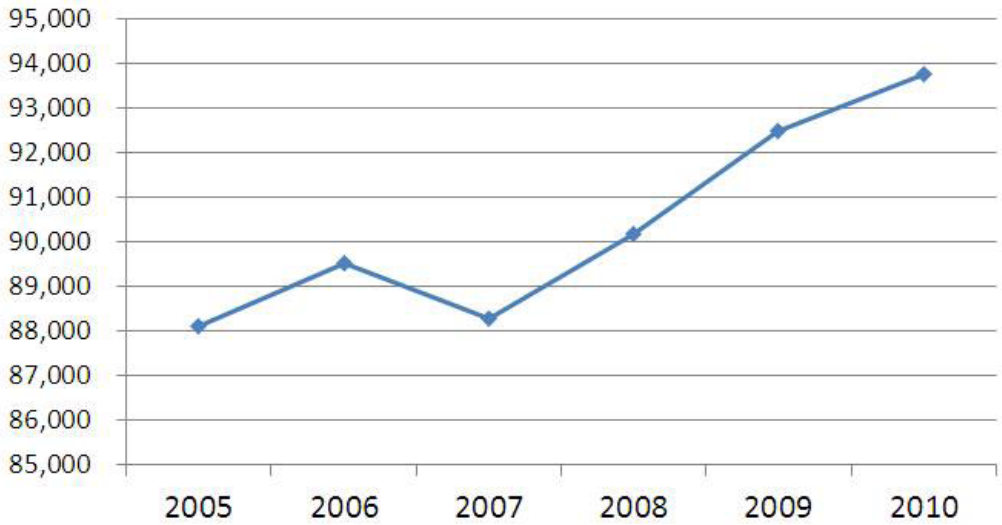
Figure 12. The number of outpatients by year and medical period in EII of South Korea



(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

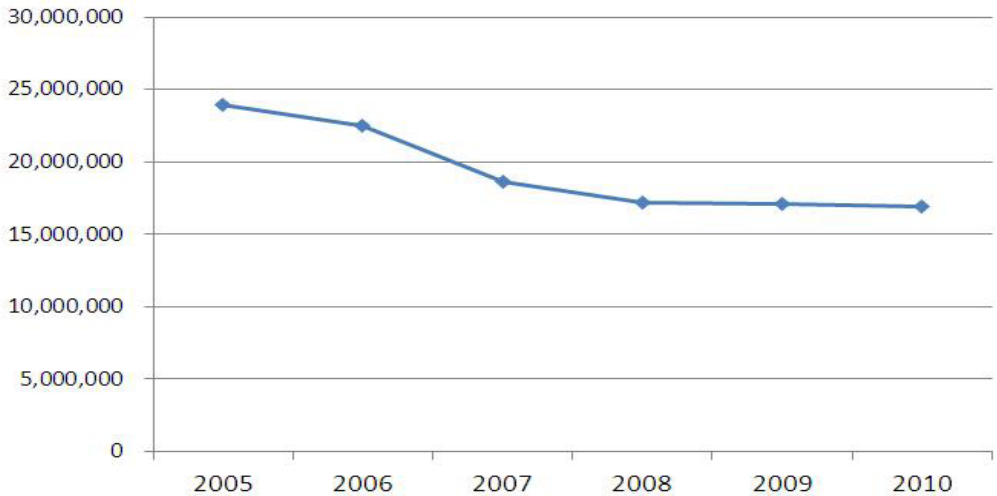
In figure 13 to 15, the number of patients finishing medical treatment continued to increase from 2005 to 2010 except in 2007 and the total days of medical treatment has declined from 2005 to 2010. When it comes to average days of return to work, it continued to decrease during the same period.

Figure 13. The number of patients finishing medical treatment in EII of South Korea



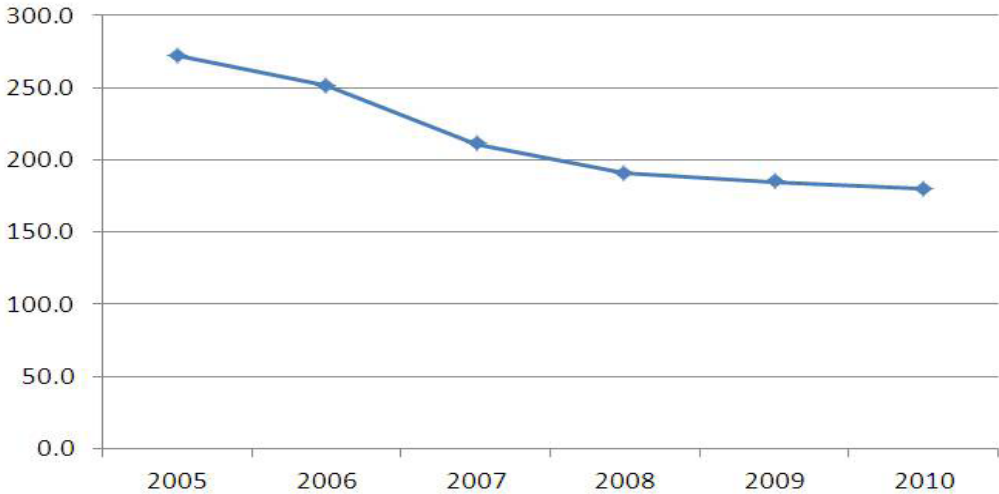
(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

Figure 14. The total days of medical treatment



(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

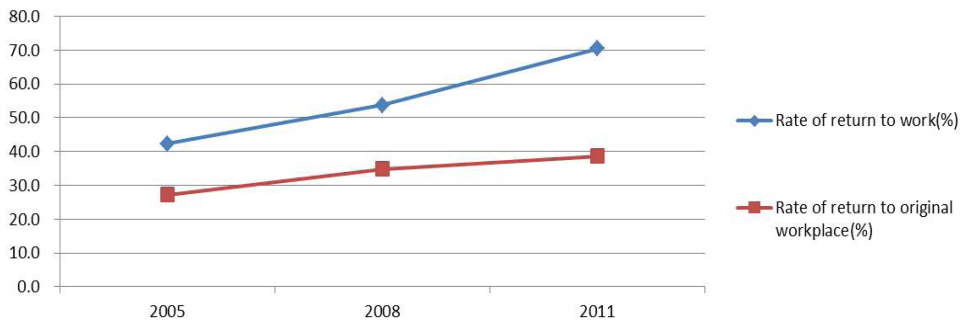
Figure 15. Average days of return to work by year in EII of South Korea



(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

In addition, if we look at the return to work rate and return to original workplace in figure 16 in 2005, 2008, 2011, the each last year of three development plan-implementing period as in table 4, we can find the plans contributed to facilitating injure workers' return to work.

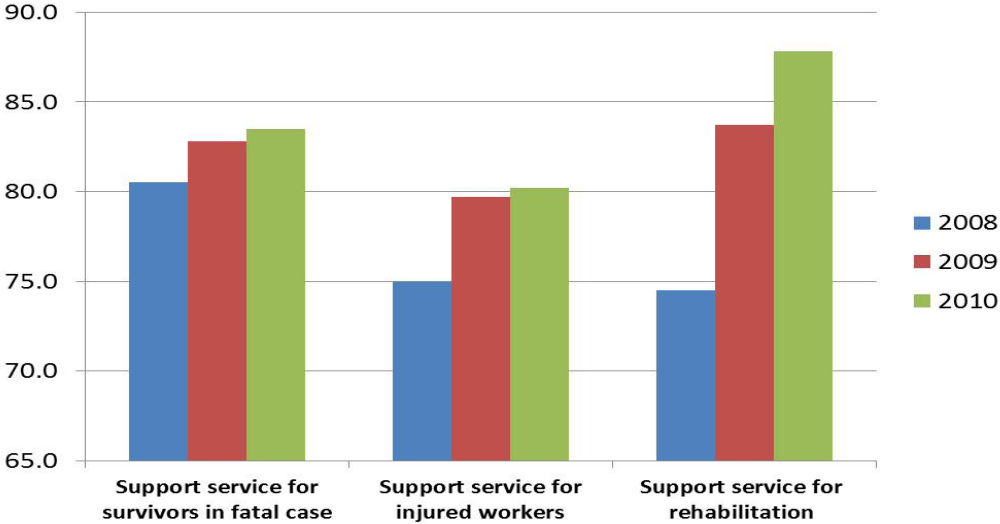
Figure 16. Rate of return to work and return to original workplace in EII of South Korea



(Data is shown in line graph based on the data of ministry of employment and labor in South Korea)

When it comes to EII beneficiaries' perspective, it would be better to examine the degree of their satisfaction of related service. As shown in figure 17, their satisfaction of return to work service has increased rapidly in comparison to the other two indicators.

Figure 17. The result of survey on satisfaction of EII beneficiaries in South Korea



The result of survey by government (PCSI)

On EII financial side, thanks to prevention and return to work programmes, EII scheme continue to keep financial stability as shown in figure 5 and 9 used when examining the relation between EII and OSH.

Additionally, the amount of payment for vocational rehabilitation benefits continued to increase like 1,976,595,540 KW in 2009, 4,474,206,820 KW in 2010 and 14,926,091,210 in 2011.

In conclusion, return to work programme starting from 2001 contributed to financial stability of Korean EII scheme along with active prevention efforts by reducing length of medical treatment period, average days of return to work, etc.

Positive changes of employment injury scheme in Vietnam

Overview of social security benefits in Vietnam

Since 1947, Vietnam Government has provided social insurance to public servants and army personnel in Vietnam. Since 1962, the first temporary regulations on social insurance have been promulgated and implemented. Since 1995, social insurance has been extended to workers who are employed by private enterprises with at least 10 workers. Since 2003, social insurance shall cover all workers who have labour contract for at least 3 months in all organizations, agency and enterprises. In 2006, the National Assembly of Vietnam adopted the social insurance law, providing regulations for compulsory social insurance (came into effect in 2007) and voluntary social insurance (2008). The Vietnam's social insurance system is defined benefit and operates on a pay-as-you-go basis. Vietnam Social Security(VSS) collects contributions and pays social insurance benefits.

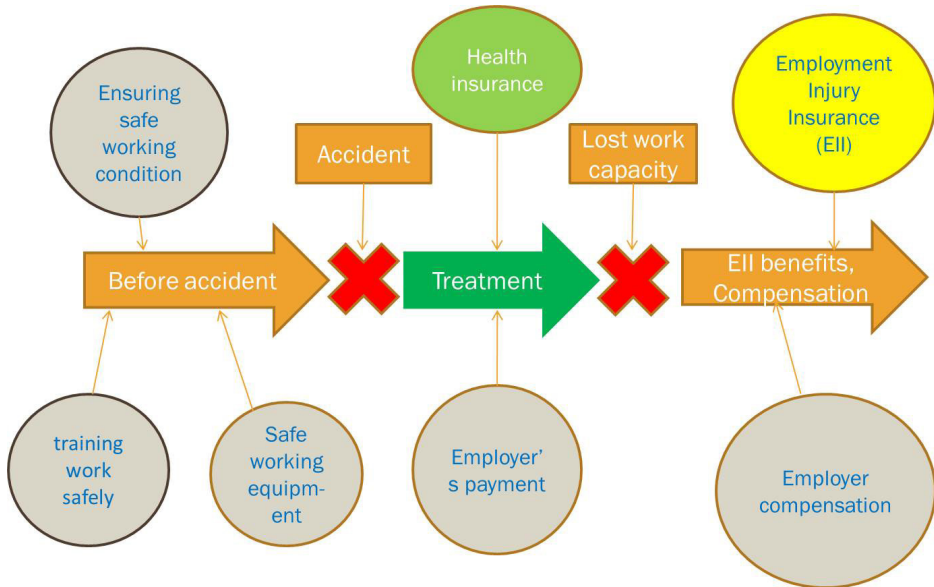
Table 5. Social insurance benefits in Vietnam

No	Branches	Schemes in Vietnam	Current Law	State administrator	Implementation agency
1	Sickness benefit	Social insurance	Social insurance law, 2006	MOLISA	VSS
2	Maternity benefit	Social insurance			
3	Employment injury benefit	Social insurance			
4	Invalidity benefit	Social insurance; Invalids after war policy	SI law, 2006 Decree-law on invalids after war, 2005		MOLISA VSS
5	Old-age benefit	Social insurance; Social protection (so. pens. for 80+)	Social insurance law, 2006 Elder law,2010		MOLISA VSS
6	Survivor's benefit	Social insurance	SI law, 2006 Decree-law on IAW, 2005		MOLISA VSS
7	Family benefit	Invalids after war' policy	Decree-law on IAW, 2005		MOLISA
8	Unemployment	Unemployment insurance	Emp. Law 2013		MOLISA VSS
9	Medical care	Health insurance	HI, 2014		MoH

Analysis and challenges of employment injury scheme in Vietnam

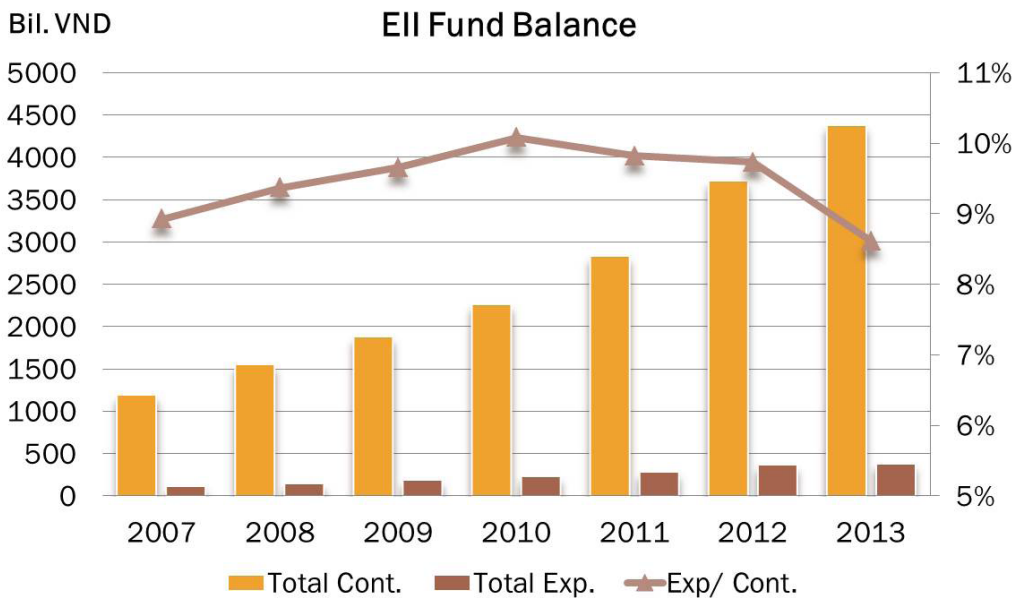
As shown in below picture, there are prevention, medical treatment and compensation in employment injury scheme in Vietnam Medical treatment are provided by health insurance system and during medical treatment, temporary disability benefit are under employer liability. Benefits in cash such as for permanent disability and death are covered by employer injury insurance but those uncovered by the scheme are under employer liability. Additionally, contribution rate is 1% of payroll, a uniform type.

Figure 18. Current employment injury scheme in Vietnam



Moreover, when it comes to EII fund balance, the difference between total contribution and total expenditure is significant as found in below figure.

Figure 19. EII fund balance in Vietnam



Thus, we can infer that challenges are inflexible contribution rate, imbalance between contribution and expenditure, two employment injury policies under one Ministry, a weak accident statistic system, quite simple employment injury insurance system, no difference between different industries.

New system and solutions

Currently, the Fund for occupational accidents and occupational diseases under the Social Insurance Fund Vietnam only pay for workers who have suffered occupational accidents after treatment and have been examined the reduction of the ability to work. It means that the Fund only pay for dealing with the consequences of occupational accidents and occupational diseases.

Derived from the view of not only dealing with the consequences but also actively implementing prevention activities, this is significant both economically and socially. Insurance fund for accidents is used for implementing prevention and risk sharing activities. So, besides implementing common revenue and expenditure insurance, Insurance fund for accidents and occupational diseases set aside part of the revenue for implementing a series of measures aimed at preventing and risk sharing of the occupational accidents and occupational diseases.

Insurance fund for labor accidents and occupational diseases

Comparing with the regulations on labor accidents and occupational of Insurance Law, the draft Law on Occupational Safety add more the following regulations:

- Expand the object: workers who do not have industrial relations can participate voluntarily in insurance fund for labor accidents and occupational diseases (Article 8 and 61);
- Support prevention and risk sharing policy (Article 60);
- Supporting for switching profession for workers having accidents and occupational accidents when they return to work (Article 54).

Support prevention and risk sharing policy

Every year, the fund for labor accidents and occupational diseases provides maximum 10% of the revenues to support for prevention and risk sharing activities on labor accidents and occupational diseases.

Prevention and risk sharing activities on labor accidents and occupational diseases

1. Examine and detect the occupational diseases;
2. Rehabilitate labor power;
3. Training and consulting on safety and occupational health;
4. Supporting a part of the cost for workers having accidents because it is the responsibility of the employer according to the regulations of Article 36 of this Law. Based on the economic-social conditions of each stage, the Government shall regulate this Article in detail.

Support for shifting career shift

(For workers having accidents and occupational diseases when they return to work)

1. Workers having accidents and occupational diseases are arranged new job by employers according to the regulations of item 7, Article 36 of this Law, if the workers need retrained, there will have tuition assistance.
2. The level of tuition assistance does not exceed 50% of the tuition and is not more than 15 months of base salary; The maximum number assistance for each worker is 2 times.

The law – the first one of its type – was passed on 25 June by the National Assembly with a large majority (89 per cent) voting in favour and will take effect from 1 July 2016. Additionally, thanks to revision of social security law in 2014, social insurance membership will be extended to employees who work under labour contract of one month and more from the year of 2016.

Successful operation of RTW in Malaysia

SOCSSO, social security organization in Malaysia implements employment injury scheme and provides vocational and physical rehabilitation facilities – FOC and offer related services such as physiotherapy, occupational therapy, reconstructive surgery, artificial limbs for permanent disablement. All costs are paid by SOCSSO for example, wheel chair, bed, oxygen concentrator etc.

SOCSSO's return to work programme was introduced on the 15 January, 2007 for insured persons suffering from employment injury or claiming to be injured. The return to work programme involves a proactive approach taken in helping injured persons with injuries or diseases, opportunities to safe and productive work activities through a bio-psychosocial and multidisciplinary case management approach as soon as it is medically possible or when maximum medical improvement is achieved with a primary focus of minimizing the impact of injuries or disabilities.

SOCISO's RTW programme objectives are to assist insured persons with injuries or diseases to return to work in a safe and fast manner, carry out SOCISO's social responsibility towards employers and employees, create a positive working environment through communication and support for employees with disabilities, reduce and minimize the potential of repetitive accidents at the workplaces, reduce disability duration and cost, increase the productivity of employees with disabilities through total replacement of income, identify job scopes that are appropriate with the employee's functional capacity, retain highly skilled and experienced workers, reduce the disability duration of employees with injuries or diseases, assess insured persons' rehabilitation needs, develop and coordinate the individually tailored rehabilitation programmes, work with insured persons to maximize their participation and employability.

These objectives are expected to be realized through specific methods such as disability management, rehabilitation, job support and placement, vocational training.

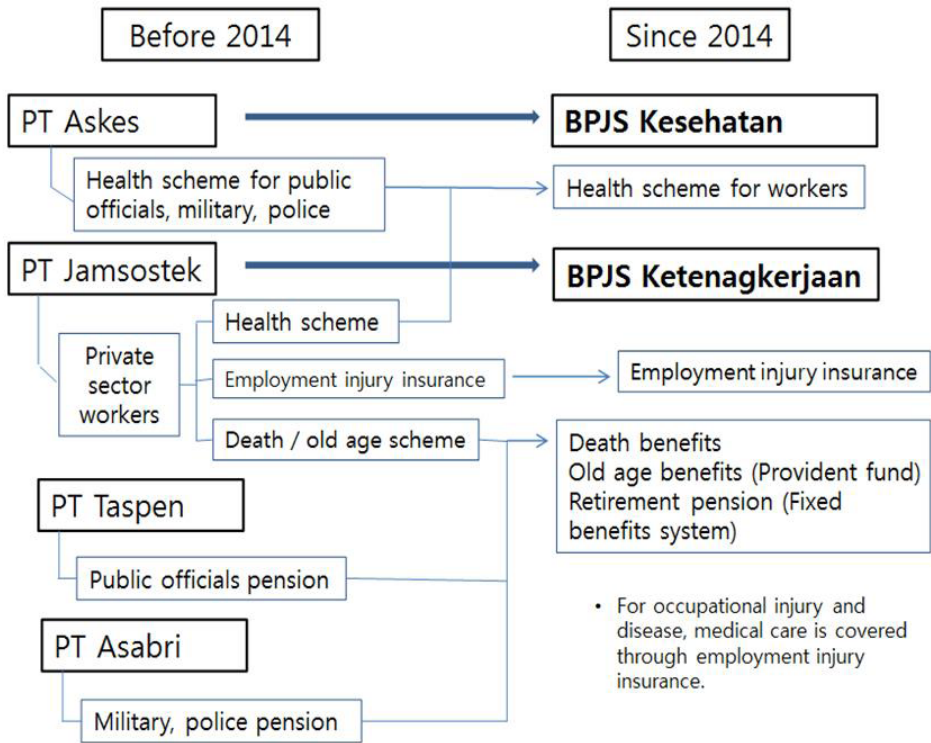
And the total expenditure for rehabilitation under the return to work programme in SOCISO are as follows; 230,560.56 RM in 2007, 267,377.00 RM in 2008, 747,486.00 RM in 2009 and 1,231,846.00 RM in 2010.

Introduction of RTW in Indonesia

Social security system reform in 2014

Indonesia has pushed ahead with comprehensive reform of social security programs for better protection of the Indonesian workers from various socio-economic risks like employment injury, old age, death, etc.; regrouped the previous four social protection organizations (PT.ASKES, PT.JAMSOSTEK, PT.TASPEN, PT.ASABRI) into two organizations (BPJS Kesehatan and BPJS Ketenagakerjaan) directly under President of Indonesia which means BPJS Ketenagakerjaan, previously named PT.JAMSOSTEK is responsible for all the social security programs except health insurance for workers including the military and government officials.

Figure 20. Outline of social security system reform in Indonesia



Introduction of RTW programme

From 2014, BPJS Ketenagakerjaan has started pilot project of Return to Work in two provinces with coordination of national and local stakeholders including Ministry of Manpower & Transmigration, Ministry of Health, National Safety & Health Council of Indonesia, Local Government, Local Health Agency, Indonesian Medical for Occupational Health, Indonesian Orthopaedic Association, Indonesian Physical Medicine and Rehabilitation Association, Health Providers, Hospitals, Employer’s Association, Company Representative. This pilot project consisted of the development of prevention schemes, case management & rehabilitation schemes. As of 1 July 2015, the RTW scheme has operated on normal basis.

Recommendation

There is no one-size-fits-all model for effective linkage between prevention and compensation. scheme type of workers' compensation and what OSH strategies focus on is different according to nations because the difference is based on the cultural, historical, ethnic background, etc. However, the linkage system and its advantage could be found in developed countries' system and some countries in Asia.

For the effective linkage, it is necessary for the country with employer liability scheme only to consider the conversion of its current scheme to public insurance type scheme. Under the employer liability scheme, the injured workers' right for compensation is not secured actually. Also, even though employers should report their workers' occupational accident or disease along with compensation amount to relevant organization, there is more possibility of under-reporting, etc. Thus, through the introduction of EII scheme, the government can access the data of workers' compensation for planning more systemic OSH strategy.

For the sustainability of employment injury insurance, the prevention effort is needed very much. Most of the developed systems of EII allocate some portion of EII fund to prevention. In Asia, there are few nations which do this with the exception of some countries such as South Korea. In case the system is at the beginning stage, the fund is sufficient so they can consider the investment on OSH for prevention of employment injury through some allocation of EII fund to OSH, which will contribute to the financial sustainability in the long term. The evidence is found in historical development in workers' compensation insurance and its financial sustainability which investment on prevention has contributed to. This consideration is applicable to low income and middle income country in Asia and the Pacific region whose EII scheme has not reached mature stage yet.

And considering the relation between compensation and prevention, social insurance type of scheme could sustain the prevention policy more than private one. For example, in a competitive market it is even argued that experience rating could strengthen the competition between insurance companies, as they are forced to offer more individual premium rates. However, it becomes difficult for insurers in a competitive market to offer rewards for specific prevention activities, such as training, investment in OSH-friendly equipment or the certification of OSH management systems. Subsidizing these preventive activities can be regarded as an investment by the insurance company, which it hopes will pay off in future years when fewer claims should be received. However, in a competitive system, enterprises are able to change their insurance providers at short notice and an insurance company runs the risk that a subsidized client may change to another, possibly cheaper, competitor, after having enjoyed the incentives and consultancy provided by the original insurer.

In addition, for establishing more balanced system in employment injury scheme, countries in Asia and the Pacific region need to introduce return to work programme although the concept of return to work is not familiar to developing countries in the region. Also for its implementation, technical expertise and further resource are needed. However, as the evidence of the linkage with OSH and contribution of return to work programme to EII scheme as a whole is suggested in South Korea case, the scheme's financial stability will be established through building Synergetic linkage between prevention, compensation and return to work in employment injury scheme.

However, establishing return to work programme in EII is not easy in low and middle income countries because of limitation in resource, expertise, infrastructure, public awareness, etc. Considering them, the suggestions can be made as follows⁴.

First, the broader context of a developing country always has to be considered when developing return to work interventions and unique approaches may be required. And yet, the essential elements of return to work system need to be present, such as early intervention, assessment, rehabilitation plan, medical and vocational rehabilitation. Bearing in mind the broader context, choices need to be made, such as whether rehabilitation is essentially a public, an employer or a mixed public/private responsibility.

Second, before or at the very early stages of a system in a developing country, investments should be made in training of a cadre of disability/case managers and utilizing an audit tool to understand what changes need to take place at the level of the workplace. Room should be left for a system to develop gradually. Employer involvement and buy-in is crucial. Consulting and involving stakeholders and professional bodies are imperative, also to address misconceptions/negative perceptions.

Third, public awareness has to be raised for people and users of the system to understand the system. Institutional reforms need to be effected, in particular at the level of the lead institution such as workers' compensation fund. A legislative framework which clearly indicates the role and responsibilities, rights and duties of different parties, needs to be in place.

⁴ I referred to Marius Oliver(2012), Return-to-Work: A developing country perspective in most part.

Fourth, best practice examples are of great value. The ILO relevant convention & recommendation⁵ and the UN Disability Convention⁶ provide important direction. The ISSA Guidelines on Return to Work, being developed in partnership with RI (Rehabilitation International) and the IDMSC (International Disability Management Standard Council) will be of considerable assistance. Even where a system has been established and operational for some time, higher levels of provision, support and protection should be considered.

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⁵ ILO Convention No. 121 requires member countries to provide rehabilitation services which are designed to prepare a disabled person for the resumption of his previous activity, or, if this is not possible, the most suitable alternative works, having regard to his aptitudes and capacity; and to take measures to further the placement of disabled persons in suitable employment. Furthermore, Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983 (No. 159) and Employment Policy (Supplementary Provisions) Recommendation, 1984 (No. 169) provide that “where possible and appropriate, social security schemes should provide, or contribute to the organization, development and financing of training, placement and employment including sheltered employment programmes and vocational rehabilitation services for disabled persons, including rehabilitation counselling.

⁶ In addition, the importance of RTW is found in the United Nations Disability Convention, Convention on the Rights of Persons with Disabilities (UNCRPD) which was adopted in 2006 and entered into force in 2008. It is ratified by a large number of countries (7 June 2012: 113 ratifications; 153 signatories), increasingly also by developing countries. Lead provision is article 27 and stipulates the obligation to safeguard and promote the realization of the right to work including for those who acquire a disability during the course of employment by taking appropriate steps, including through legislation. As important RTW and DM elements, the followings are contained in the Convention; professional (occupational) rehabilitation, job retention, introduction of RTW programmes, vocational and technical training and guidance, programmes and placement services, promotion of employment opportunities (also for self-employment, entrepreneurship, development of co-cooperatives and starting one’s own business), providing reasonable accommodation which does not impose a disproportionate or undue burden on employers), promotion of individual autonomy and independence of the affected worker, inclusion of affected worker in development of rehabilitation plan, societal inclusion and participation, multi-disciplinary assessment, etc.

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