UTCC International Journal of Business and Economics (UTCC IJBE)
Volume 10 Number 3, December 2018

THE ANALYSIS OF SOCIAL RETURN ON INVESTMENT (SROI) TOWARD THE ELDERLY HEALTH CARE DEVELOPMENT PROGRAM*

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Abstract

This research was the mixed method that aimed to evaluate the Social Return on Investment (SROI) toward the Elderly Health Care Development Program of Nont-None Subdistrict Administrative Organization, Warinchamrap Distirct, Ubon Ratchathani Province under the fiscal year 2015-2016. The stakeholders were comprised of three groups such as elderly patients, caretaker, and cousin or caretaker of elderly people. The data collection approaches were the unstructured interview and the focus group. Tool for analysis was the social return on investment evaluation form.

The results revealed that both the monetary and non-monetary factors were adapted for two years operating the program. The current worth of this program was 356,514 baht. The worth of operational benefit was 562,005.97 baht. These were presented that the Social Return of Investment was 1.58 more than 1.00. This revealed that the Elderly Health Care Development Program was worth of investment. This meant that one baht on investment enabled the Social Return on Investment to be worth as 1.58 baht.

Keywords: Social Return on Investment, Elderly patients, Caretaker, Local Administrative Organization, Community

*This paper is a part of the efficiency and governance of decentralization policy towards the Local Administrative Organization, under the research program of efficiencyandgovernanceofThaiPublic Policy,theefficiencyandgovernanceof Thailand's Decentralization Policy.

Introduction

'No disease is a good fortune'. This previous sentence is absolutely the truth of humankind. The medical and public health goals of Thailand consist of two parts, such as (1) longevity of life, (2) better quality life. As defined by World Health Organization (WHO), it is a "State of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." This matches the definition of 'quality of life' as the satisfaction awareness and the status of people towards a social life way. It relates with the goal and the expectation of themselves under the cultural, value, social standard, and other contexts. A strong health person of all ages is very important towards the quality of life (Orawan Noiwat, 2012).

In 2012, Thailand will completely become an aging society. Moreover, older Thais have a low income that is lower than a poverty line. According to the physical checkup survey in 2013 found that 2 percent of older Thais are a bedridden or a bed bound elder patient, 19 percent of older Thais are a home bound elder patient. Therefore, Thai government must prepare for entering a completely aging society in four years (Foundation of Thai Gerontology Research and Development institute (TGRI) and the Institute for Population and Social Research (IPSR) - Mahidol University, 2015). Plus, the Local Administrative Organization (LAO) and the community are encouraged to take care of poor elder person that is the alternative way.

The Health Security Fund and the Local Administrative Organization (LAO) are established for encouraging health care service directly. Especially, four target groups need to gain this service such as juvenile group, elder group, disable person, and chronically ill group. This service are granted a budget by the committee of national health security fund.

This research aimed to evaluate the social return on investment under the elder health system development program of the Nont-None Subdistrict Administrative Organization, Warinchamrap district, Ubon Ratchathani province during the fiscal year 2015 – 2016. The benefits of this research were delivered to the executive of the Nont-None Subdistrict Administrative Organization, including other LAO in order to make the best decision for the better life of elder person.

Literature review

Social impact assessment and social return on investment (SROI)

(Saruenee Unchawanuntakul and Pattaeaporn Yamraor, 2014)

Social Impact Assessment (SIA) is the social value of process that is congruent with the target group requirements and the organizational missions, for example, the poverty reduction, the waste reduction, and disable person, elder person, and juvenile helps.

Social Return on Investment (SROI) defines that the calculation of social impact in order to find a monetized value and compare the value of one baht investment on the social return.

Return on Investment (ROI) is the measurement of the gain or loss generated on an investment relative to the amount of money invested.

The differences between SROI's results and ROI are a monetary value. It means that SROI enables key values to definitely merge with the program mission. SROI reflects the reification of investment on those programs, in additional, it was developed from social accounting and cost benefit analysis, and has a lot in common with other outcomes approaches.

The conceptual framework of an assessment and SROI

The Social Impact Assessment and the Social Return on Investment are the same conceptual framework that clearly define the goal, quantify and monetize as the figure 1.

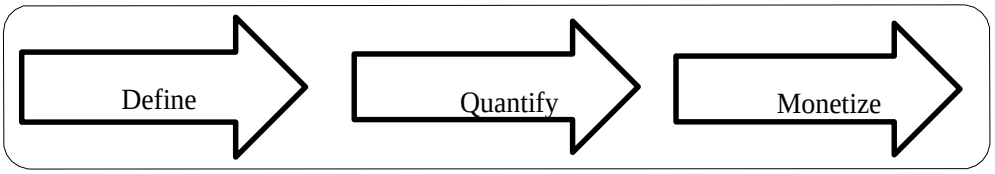

Figure 1 The conceptual framework of an assessment and SROI

Referred to previous the conceptual framework and tools, it is able to conclude five stages of the SROI process as following (Thai Health Promotion Foundation, 2014), such as 1) Establishing scope and identifying stakeholders, 2) Mapping outcomes, 3) Evidencing outcomes and then availability, 4) Establishing impact, and 5) Calculating the SROI.

The Elderly health care development program of the nont-none subdistrict administrative organization, Warinchamrap distirct, Ubon Ratchathani province

Nont-None Subdistrict, Warinchamrap Distirct, Ubon Ratchathani Province is consisted of 12 villages, 7,123 total population. Indeed, there are 942 elder

persons (more than 60 years old) (13.22 %). This previous amount includes 139 bed ridden and a house ridden patients (14.76%). Additionally, the Nont-None Subdistrict Administrative Organization's survey report on the quality of life in health care of elder person revealed that elder people mostly had the optical problems, bone diseases, movement problems, and chronically ill, for instance, diabetes and blood pressure. All health problems must immediately and continuously implement the solution. Meanwhile, the local government in Warinchamrap district established the health care network in 2012, in order to be the district of health care management. The approach of this management was the triage that was the sorting of patients and assigning degrees of urgency to cure. However, in this area found that there were only 3 caretakers who passed the health care training from the faculty of Nursing, Ubon Ratchathani University (UBU). Therefore, in order to be completely and sustainably program, all local organizations have cooperated with each other for operating the program.

Stages of SROI process of the Elderly health care development program

The distinguishing SROI is the interaction with the stakeholders on the analysis process such as outcomes decision-making step, outcome mapping step, financial proxies step, and attribution proportion step. The stakeholder participation enables them to definitely accept the results of assessment, including the opinion exchange and strong cooperation is able to appear. Oppositely, the limitation might be happened such as bias, due to lack of participation of the stakeholders or domination of others. On the other hand, the other principles of assessment comprises the comprehension of changes and interpretation, emphasis on objects, avoidance of the benefits beyond reality, transparency, the confirmation on the right results (Thai Health Promotion Foundation, 2014). The certain period of assessment is 2015 to 2016 only.

The Impact Value Chain

The interview and the documentary data came from the participation analysis or the impact of operational program. This could divide to be nine groups and indeed, such Caretakers, Long term elderly care, Cousin of elder person, People in community, Committee of the elderly health care club, the Nont-None District Administrative Organization, Members of the Nont-None District Administrative Organization, Subdistrict Headmen, and Village Leader, Nont-None Hospital and Village Health Volunteer (VHV), Doctor, Nurse, Physiotherapist of Warinchamrap Hospital, and The faculty of Nursing, UBU. Only the first three groups could be the main stakeholders.

In short, this study process could summarize by using theory of change, for example, input, activities, output, outcomes, and impact.

Data Collection

The outcome indicators and financial proxy

Referred to theory of change, the significant results led to the change measurement that set the indicators to determine the change by comparing none of the elder health care program and financial proxy. This approach needed to transfer these indicators to be monetary value. However, this assessment must be monetary value, plus, indicators and financial proxy had to be congruence and reflection with the real results. This research appointed the indicators and financial proxy along with the causes as see table 1.

The deadweight, displacement, and attribution

According to the interviewing of stakeholders, this research was able to gain the qualitative data of change, even though, they did not have any elder health care program (deadweight) as see table 2 and 3, in terms of the supporting factors on attribution as see table 4. However, this research did not find any displacement, it meant that the benefits did not negatively impact on the stakeholders or people in society at large.

The benefits period and drop-off

Referred to assessment criteria, this research focused on the previous two years ago only without the cost and prospective benefit forecasts, therefore, it did not analyze the benefits period and drop-off of program after completing.

As table 2, the outcomes and the impact were a significant data that need time to collect by interviewing, focus group, cooperating analysis between the researchers and the stakeholders. This research emphasized on input, activities, and output, therefore, the stakeholders were important and the results must evaluate to be a concrete object. Due to the elder health care program is currently operating, the drop-off is set to be zero or none of benefit reduction during the assessment period. The results of this research are demonstrated as table 4.

Table 1 The indicators selection and financial proxy

Stakeholders	Outcomes	Reasons
1. Caretakers who passed the training	completely health care knowledge and income increment	This program has been running for almost three years. It aimed to encourage and employ caretakers who passed the training. The training was able to exactly increase their confidence on health care jobs.
	happiness on helping other people in the community	Caretakers confessed that they were happy to help people in their community rather than other communities, because if they worked in other communities, they might support only one elder people, but if they still work for their community, they were able to treat many elder patients. In this phenomenon enabled them to be very happy which was congruent with Chandoevwit and Thampanishvong (2015). They studied about the value of social interaction along with satisfaction of Thais. Their results revealed that offering help to others could make more satisfaction and happiness to workers. If it was calculated to be value, it was approximately 40 percent of monthly income. It meant the local government were willing to pay money 40 percent of monthly income, in order to sustain caretakers' satisfaction.
2. Long term elderly care	healthy of elder patients	The training by the faculty of nursing, UBU was able to build three caretakers gaining new health care knowledge and confidence. Presently, they can visit elder patients approximately 1-2 times per week.
	More happiness of elder patients	Mostly, the home bound and bed bound elder patients were poor. Obviously, caretakers visited and treated them. It made them more happiness and increased their powerful life. It confirmed this statement by 29 elder patients under this program. Indeed, it was congruent with Chandoevwit and Thampanishvong (2015). They studied about the value of social interaction along with satisfaction of Thais. Their results revealed that interaction with neighbors occasionally could build satisfaction. If it was calculated to be value, it was approximately 17 percent of monthly income. It meant the local government were willing to pay money 17 percent of monthly income, in order to sustain caretakers' satisfaction.
3. Cousin of elder person	Diminution of the health care expenditure	Cousins of elder person had to pay for the transportation and expenses for medical treatment. Later, caretakers helped them suspending the previous action. Consequently, the expenditure for all health care were decreased

Table 2 Deadweight without the Elderly health care development program

Stakeholders	Outcomes	Data from interviewing and focus group	Deadweight - DW (%)
1 .Caretakers who passed the training	completely health care knowledge and income increment	-2015, the Subdistrict Administrative Organization (SAO) paid a compensation to Miss Krue and Miss Chan for health care on elder patients about 5,900 baht/month. For Miss Lert's compensation was 6,100 baht/month. Their working period was 4 months. - 2016, SAO paid the compensation to Miss Krue, Miss Chan, and Miss Lert about 4,500 baht/month for 12 months working period.	DW =0%
	happiness on helping other people in the community	- Originally, Miss Krue was a village health volunteer and happy to helping other people in her community about 20%. Later, she became a caretaker. Her happiness was 100% that increased about 80%. -Originally, Miss Chan and Miss Lert were a village health volunteer and happy to helping other people in their community about 50%. Later, they became a caretaker. Their happiness was 100% that increased about 50%.	DW = (20+50+50)/3 Dw = 40%
2. Long term elderly care	healthy of elder patients	- 2015, the cost of rehabilitation of elder patients related to the compensation of three caretakers approximately 5,967 baht per each or 198.9 baht per day. The visiting schedule of elder patients needed all three caretakers. Therefore, the cost of this was 66.3 baht per caretaker. - 2016, the cost of rehabilitation of elder patients related to the compensation of three caretakers approximately 4,500 baht per each or 150 baht per day. The visiting schedule of elder patients needed all three caretakers. Therefore, the cost of this was 50 baht per caretaker.	DW = 0%
	More happiness of elder patients	- 2015, the home bound and bed bound elder patients were selected to join the program about 35 elder persons and during this time, some of them passed away.	78/29 =2.69 from 10 full scores or 26.9% DW) =100-

		-2016, 41 elder patients were in this program .Later, 29 elder patients in 31 elder patients found the happiness after treating from caretakers.	26.9%(DW = 73.1%
3 .Cousin of elder person	Diminution of the health care expenditure	Before having caretaker in the community, the cousins of elder patients had to bring their elder patients to hospital and needed to back for picking them to home .All these must be spent a lot of money, including, inconvenient for the cousins of elder patient .Later, after caretaker appearing, the cousins did not need to bring their elder patient to hospital . This phenomenon definitely helps them to decrease the health care expenditure.	DW =0%

Table 3 The weight of the supplementary factors (Attribution)

Stakeholders	Outcomes	Attribution (%)	Reasons
1 .Caretakers who passed the training	completely health care knowledge and income increment	100	The health care knowledge of caretaker increased because of joining the training course for caretaker. This was benefits from SAO about 100%.
	happiness on helping other people in the community	100	The happiness of caretaker was increased because of helping elder patients in their community. This was benefits to SAO about 100%.
2 .Long term elderly care	healthy of elder patients	100	The elder patients were increasingly healthy because of caretaker's treatment. This was benefits to SAO about 100%.
	More happiness of elder patients	100	The elder patients were increasingly happiness because of caretaker's treatment. This was benefits to SAO about 100%.
3. Cousin of elder person	Diminution of the health care expenditure	100	The health care expenditure was decreased because of caretaker's services. This was benefits to SAO about 100%.

Table 4 Stakeholders, results, indicators, and financial proxy

Stakeholders	Outcomes	Indictors	Financial Proxies
1. Caretakers who passed the training	completely health care knowledge and income increment	per diem/ compensation	Compensation in 2015 (4 months) (baht/person/year) 1.person x 6,100 baht x 4 months x) 1-0 (x 1 =24,400 baht 2. persons x 5,900 baht x 4 months x)1-0 (x 1 =47,200 baht Compensation in 2016)12 months(3. persons x 4,500 baht x 12 months x)1-0 (x 1 =162,000 baht Total 233,600 baht
	happiness on helping other people in the community	Amount of Happiness caretaker	Happiness in 2015 (4 months))baht/person/year(1. person x) 0.4 x 6,100 x 4 (x)1-0.5 (x 1 =4,880 baht 2. persons x) 0.4 x 5,900 x 4 (x)1-0.35 (x 1 =12,272 baht Happiness in 2016)12 months (3 persons x) 0.4 x 4,500 x 12 (x)1-0.40 (x 1 =38,880 baht Total 56,032 baht
2. Long term elderly care	healthy of elder patients	Amount of rehabilitation times	2015 (4 months) (baht/person/year) 3 persons x 3 times x 66.3 baht/time x 30 days x 4 months x (1-0) x 1 = 71,604 baht 2016 (12 months) 3 persons x 3 times x 50 baht/time x 30 days x 12 months x (1-0) x 1 = 162,000 baht Total 233,604 baht
	More	Amount of	2015 (4 months)

	happiness of elder patients	happiness elder patient	(baht/person/year) 29 persons x (0.17 x 1,329 x 4 months) x (1-0.731) x 1 = 7,049.92 baht 2016 (12 months) 29 persons x (0.17 x 1,329 x 12 months) x (1-0.731) x 1 = 21,149.76 baht Total 28,199.68 baht
3. Cousin of elder person	Diminution of the health care expenditure	Transportation cost between home and hospital	2016 (4 months))baht/person/year(5 persons x 4 times per year x 100 baht)1-0(x 1 =2,000 baht 5 persons x 4 times per year x 50 baht)1-0 (x 1 =200 baht Total 2,200 baht
Grand total			**553,635.68 baht**

Table 5 The budget of the Elderly health care development program

The budget	2015	2016
1. The Nont-None Subdistrict Administrative Organization and the Local Health Security Fund (77,180 baht) and the Development of the Life Quality Program (14,500 baht)	91,680	150,000
2. The Faculty of Nursing, UBU (The training cost 35,000 x 3 persons)	105,000	
Total	**196,680**	**150,000**
Grand Total	**346,680**	

Source: The Elderly Health Care Development Program of Nont-None Subdistrict Administrative Organization, Warinchamrap Distirct, Ubon Ratchathani Province under the fiscal year 2015-2016

The Calculation of SROI

This research set the benefit assessment of the program during the fiscal year 2015 – 2016. The Elderly Health Care Development Program was impacted to the stakeholders since the beginning of program. Therefore, the calculation of SROI during the program operation did not deduct the drop-off value. All benefits were transferred to be a present value as 2016, along with the proportional deduction 5 percent. This number was not adjusted the inflation.

During 2 years of the program operation, this research applied both monetary and non-monetary factors. The present value was about 356,514 baht and the benefits from the operation was valued

as 562,005.97 baht. Therefore, SROI was about 1.58 that meant one baht investment would be social return about 1.58 baht. It presented that SROI value greater than 1.00. Consequently, this program is worth to invest as table 6.

Table 6 SROI

Lists	2015	2016	Total Present Value
1. Inputs	196,680.00	150,000.00	356,514.00
2. Benefits	167,405.92	386,229.76	562,005.97
		SROI	**1.58**

Remarks: Based year was 2016 and proportional deduction 5%
Source: From the calculation

Regarding the benefit calculation, it demonstrated the proportion of three stakeholders, such as the majority benefits (59.53%) belonged to caretakers. Because they attended the training and encouraged them to gain the health care knowledge. They were able to use their capacity to support their community rather than out of their community. Even though, the compensation of others were higher than current compensation. Oppositely, they preferred to stay inside their place and be happiness to support their hometown.

Other groups were very important. The benefit value was 40.14% that belonged to home bound and bed bound elder patients. They were very happy due to supporting from caretakers. On the other hand, the mostly elder patient ages were more than 75 years old, career as agriculturist. According to their career, they had to heavily use their body for working. It led their body to deteriorate. Indeed, they needed caretakers to encourage. Moreover, their economic status were poor. In consequence, caretakers gave them a hand to help. It made them very happy.

Recommendations

Referred to the excellent results, the sender (caretakers) and the receiver (elder patients) were happiness and engagement of each other. Even though, they were not in family relationship. To be continue this program and build the interdependent community, this research was recommend as following:

1) The Nont-None SAO should build a new caretaker by seeking the relatives of elder patients or other youths in the community. They had the potential to encourage for continuing the program. If the local organization is able to continuously build a caretaker in the community, this program is still created the great benefits for all people.

2) Because Thailand will become the aging society soon, if other communities adapt the Nont-None SAO's program,

caretakers would be the important person to support the mission of the local organization and create the peaceful society along with healthy and happiness people in the future.

3) After treating by caretaker and supporting the local health care fund, the poor elder patients were able to be more healthy and happiness. Caretakers were able to solve the worst environment to be the safety area for elder patient, such as the hygiene and safety toilet. This phenomenon enabled elder patients to please using the new toilet, in addition, walking to the toilet could help them to rehabilitate their strong healthy. Some of them could walk by themselves. From this reason, the local organization should continuously allocate the budget to provide the medical instrument and health care fund.

References

Chandoevwit and Thampanishvong (2015), "Valuing Social Relationships and Improved Health Condition among the Thai Population," Journal of Happiness Studies, Vol. 17, No. 5, pp. 2167-2189.

Foundation of Thai Gerontology Research and Development institute (TGRI) and The Institute for Population and Social Research (IPSR) - Mahidol University (2015), Thais Elder People Survey in 2014. Retrieved by March 29, 2017 from http://www.dop.go.th/upload/knowledge/knowledge_th_20161608145901_1. pdf.

Orawan Noiwat (2012), "Healthy and Quality of Life," Online Newsletter of Health Sciences, Department of Health Sciences, Sukhothai Thammathirat Open University, Retrieved by March 03, 2017 from http://www.stou.ac.th/Schools/ Shs/booklet/book55_3/pbhealth.html. Saruenee Unchawanuntakul and Pattaeaporn Yamraor (2014), SIA and SROI Handbook. New Entrepreneur and Business Incubation, Faculty of Commerce and Accountancy, Thammasat University.

Thai Health Promotion Foundation (2014), Local Health Care Development Handbook: Beyond Healthy. Retrieved by March 16, 2017 from http://www.med.cmu.ac.th/ dept/commed/2015/images/files/pdf/manual_co mmhealth.pdf.