

## **CHAPTER 4**

### **DATA ANALYSIS**

The study aimed to learn outcomes of the evaluation on Supervisors Training Program in Chun District. Study samples consisted of 10 supervisors and 18 supervised staffs. Results of study are shown as description and table illustration.

#### **Results of data analysis contains of :**

- 4.1 General information of study samples (table 1 and 2).
- 4.2 Data on comparison of knowledge between pre and post test of supervisors training session (table 3).
- 4.3 Data on the assessment of knowledge and skills of supervised staffs on problems solving process (table 4).
- 4.4 Data on the assessment of supervised staffs' satisfaction towards supervision (table 5-11).

#### 4.1 General Information of Study Samples (table 1 and 2).

Study samples composed of 2 groups: 10 supervisors and 18 supervised staffs, as followed:

**Table 1 : General Characteristic of Supervisors**

General characteristic	Number ( n = 10 )
<b>Sex</b>	
Male	4
Female	6
<b>Age (years)</b>	
31 –40	4
41 – 50	5
51 - 60	1
( max = 54 , min = 35 , $\bar{x}$ = 38.5, $\pm$ S.D.=5.73 )	
<b>Education Level</b>	
Certificate	3
Bachelor degree	7
<b>Duration In Position_( years )</b>	
1 – 10	5
11 – 20	5
> 20	-
( Max = 13 , Min = 5 , $\bar{x}$ = 15.9 , S.D=3.05 )	

According to the analysis on general information of supervisors, the findings were, more female supervisors (6 persons) than male (4 persons), most of them aged between 31-40 year old (4 persons), next was 41-50 year old (5 persons), the average age was 38.5 year old. Most supervisors graduated with Bachelor's Degree (7 persons)

and three with was academic diploma, Most supervisors has over 15 years of working experiences on their current positions (7 persons) and second to this was between 10-15 years. Below are description of each supervisors:

1<sup>st</sup> supervisor: a 40 year old male, degree on medical doctor, has been positioning as the Director of Chun Hospital for 12 years. He is knowledgeable and competent on areas of management, disease diagnosis and treatment, and well perceived on work operation of health center. He was responsible in supervising general management, disease diagnosis and treatment provision at health center. He has a character of leadership, clear spoken, neutral personality, and wide visions.

2<sup>nd</sup> supervisor: a 38 year old male, bachelor's degree on Pharmaceutical from Chiangmai University. He has been working at the position of Head of Health Pharmacy at Chun Hospital for 11 years. He is knowledgeable and competent in the areas of medicines and pharmacy equipment management. He was responsible in supervising the utilization of medicines and medical equipment. His character is calm, reasonable, reliable, and able to convey messages well.

3<sup>rd</sup> supervisor: a 48 year old male, received the degree of Public Health diploma. He has working at the position of Head of Non-Communicable Disease Control and Abusive Drugs at Chun District Health Office for 9 years. He is knowledgeable and competent on controlling and preventing epidemic diseases and abusive drugs. He supervised on epidemic disease control and prevention and abusive drugs curative provided at health center. His character is well adjusted, polite spoken, and calm.

4<sup>th</sup> supervisor: a 43 year old male, holding a Bachelor's Degree on Public Health. He has been working at the position of Health Officer at Chun District Health Office for 6 years. He is knowledgeable and competent on computer and health information system. He supervised on health information system and primary health care at health center. He is keen at works, good human relationship, and able to convey messages well with calm and collected personality.

5<sup>th</sup> supervisor: a 54 year old female, with a Bachelor's Degree on Public Health. Her current position is Chief of Chun District Health Office and has been at this position for 8 years. She is knowledgeable and competent on general administration and supervision on health center's administration. She has a leadership characteristic, neutral, friendly, good human relationship, wide visions, and has courtesy to others' opinions.

6<sup>th</sup> supervisor: a 45 year old female, with Bachelor's Degree on Nursing, her current position is Head Nurse at Chun Hospital. She is knowledgeable and competent on nursing care and infectious control. She supervised on the areas of nursing care and infectious control operate at health center. Her characteristic is calm and collected, good hearted, well adjusted, and keen at her areas of work.

7<sup>th</sup> supervisor: a 44 year old female, with a Bachelor's Degree on Public Health, her current position is Head of Health Promotion Section and Health Benefits at Chun Hospital. She supervised on health promotion areas, such as, mother and child health, school health, nutrition, family planning, exercise campaigns, and health benefit card

member provided at health center. She has been working at this current position for 13 years. Her character is calm, keen at works, and good human relationship.

8<sup>th</sup> supervisor: a 45 year old female, with academic diploma of Midwifery, her current position is Head of Health Promotion at Chun District Health Office, and has been working at this position for 5 years. She is knowledgeable and competent on health promotion. She supervised on the areas of health promotion. She is skillful on conveying messages and with good human relationship.

9<sup>th</sup> supervisor: a 38 year old female, with academic diploma of Midwifery, her current position is Community Health Officer; rank 6, at Chun District Health Office. She is knowledgeable and competent on administrating office supplies and vaccination provision at health center. She has been working at this position for 11 years. Her character is calm and collected, respects others' opinions, and good human relationship.

10<sup>th</sup> supervisor: a female with a Bachelor's Degree on Public Health. She has been working on financial and accounting at Chun District Health Office for 5 years, and supervised on financial and accounting managed at health center. She has teaching skills, excellent human relationship, with calm and collected personality, and has also high working intention.

**Table 2 : General Characteristic of Supervised Staffs**

<b>General Characteristic</b>	<b>Number ( n = 18 )</b>
<b>Sex</b>	
Male	5
Female	13
<b>Age ( years )</b>	
20 –30	10
31 – 40	3
41 – 50	5
(Max = 48 , Min = 22 , $\bar{X}$ 33.1 , SD =7.68 )	
<b>Education Level</b>	
Certificate	11
Bachelor degree	7
<b>Duration In Position ( years )</b>	
1 – 10	10
11 – 20	4
21 – 30	4
(Max = 21 , Min = 1 , $\bar{X}$ = 10.5 , SD =6.78)	

Table 2. According to the analysis on general information of supervised staffs, the findings were, more female supervised staffs (13 persons) than male (5 persons), most of them age between 20-30 year old (10 persons), secondly was 41-50 year old (5 persons), the average age was 33.1 year old. Most supervised staffs graduated with academic diploma (11 persons) and second to it, was Bachelor's Degree, (7persons) Most supervised staffs has between 1-10 years of working experiences on their current positions (10 persons) and second to this was between 11-20 years.(4persons),the average duration in position was 11 years As follow :

Staff 1: a 43 year old female. She earned Midwifery Diploma and continued her education for Bachelor's Degree on Public Health at Sukothai Thammathirat University. Her current position is Head of Health

**Center and has been working for 21 years**

Staff 2: a 30 year old female. Her qualification is Midwifery Diploma and continued her education for Bachelor's Degree on Health Education, has been working for 8 years.

Staff 3: a 34 year old male, with academic diploma of health officer and with 12 years of working experiences.

Staff 4: a 48 year old female, She received Midwifery Diploma, later, continued for her Bachelor's Degree on Health Education. Her current position is Head of Health Center and has been working for 22 years.

Staff 5: a 30 year old female, She graduated with Nursing Diploma and later continued for her Bachelor's Degree on Public Health at Sukothai Thammathirat. Her current position is Community Health Officer; and has been working for 8 years.

Staff 6: a 25 year old female with education level of a Diploma of Health Officer, current position is Community Health Officer; rank 2, and has been working for 3 years.

Staff 7: a 43 year old female, obtained her education Diploma on Fundamental Nursing, her current position is Head of Health Center, and has been working for 21 years.

Staff 8: a 29 year old female, with Midwifery Diploma. Her current position is Community Health Officer; rank 5, and has been working for 9 years.

Staff 9: a 24 year old female education level of Health Office Diploma. Her current position is Community Health officer and has been working for 2 years, responsible for nursing care; non communicable disease control; home health care.

Staff 10: a 41 year old female, education level of Midwifery Diploma, current position is Head of Health Center; rank 6, with 18 years of working experiences.

Staff 11: a 37 year old female, with a Midwifery Diploma, her current position is Community Health Officer; rank 6, and having 15 years of working experiences

Staff 12: a 30 year old female, obtained education level of Health Officer Diploma and later continued for Bachelor's Degree, positioning as Technical Health Officer, with 8 years of working experiences.

Staff 13: a 36 year old female, obtained Health Officer Diploma, current position is Head of Health Center, and has been working for 14 years.

Staff 14: a 26 year old female, obtained of Health Officer Diploma, later continued for Bachelor's Degree on Health Education. His current position is Community Health Officer; rank 2, has been working for 3 years.

Staff15: a 28 year old female, with a degree on Fundamental Nursing and Midwifery Diploma, current position is Community Health Officer, has been working for 6 years.

Staff 16: a 42 year old male, achieved Health Officer Diploma, and later continued his education for Bachelor's Degree on Public Health. His current position is Head of Health Center.

Staff 17: a 28 year old female, with a degree of Health Officer Diploma, her current position is Community Health Officer; rank 3.

Staff 18: a 22 year old male, with a degree of Health Officer Diploma, positioning as Government Officer, has been working for 1 year.

## 4.2 Data on Comparison of Knowledge Between Pre and Post Test of Supervisors Training Session (table 3).

**Table 3 : Knowledge of Supervisors on problem solving process**

Knowledge	$\bar{X}$ SD		Z	p-value		
	Pretest	Posttest				
1.Data Collection (2 Items 8 Point)	5.00	1.41	6.60	0.70	-2.395	0.017
2. Data Analysis (2 Items 8 Point)	3.90	1.52	6.70	0.67	-2.629	0.007
3. Problem Identification (2 Items 8 Point)	3.80	1.55	6.20	0.92	-2.318	0.020
4. Problem Analysis (2 Items 8 Point)	3.60	1.26	6.60	0.97	-2.680	0.007
5. Objective Designation (2 Items 8 Point)	3.40	1.43	5.90	0.74	-2.549	0.011
6. Strategies Designation (4 Items 16 Point)	7.40	3.66	13.50	0.19	-2.677	0.007
7. Target Setting (2 Items 8 Point)	3.80	1.44	7.00	0.82	-2.814	0.005
8. Project Preparation (9 Items 36 Point)	15.00	2.21	28.20	2.15	-2.821	0.005
<b>Overall</b>	<b>45.90</b>		<b>80.70</b>			

As of table 3, the comparison of knowledge on problems solving process of supervisors between pre and post training test resulted the mean score of post - test was ( $\bar{X} = 80.70$ ) higher than pre - test ( $\bar{X} = 45.90$ ) at 0.05 statistically significance. The analysis of each individual, found mean score of post - test was increased at each of them with 0.05 statistically significance.

### 4.3 Data on the Evaluation of Knowledge and Skills of Supervised Staffs on Problems Solving Process (table 4).

**Table 4 : Knowledge and skills of Supervised staffs**

Knowledge and skills	H1		H2		H3		H4		H5		H6	
	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	$\bar{x} \pm S.D.$	
Data Collection (8)	6.33	1.15	6.33	0.58	6.67	0.58	6.00	1.73	6.33	1.53	7.33	0.58
Data Analysis (8)	8.00	0.00	7.67	0.58	7.00	1.00	7.00	1.00	7.00	1.00	7.00	0.00
Problems Identification (8)	7.00	1.00	7.33	0.58	7.00	0.00	6.67	1.15	6.67	0.58	7.00	0.00
Problems Analysis (8)	6.33	0.58	7.00	1.00	7.33	0.58	5.67	1.53	4.67	1.15**	6.00	2.00
Objective Designation (10)	10.00	0.00	9.67	0.58	7.33	1.15	9.00	1.73	8.67	1.53	9.00	1.73
Strategic Designation (8)	6.67	1.15	7.67	0.58	6.00	0.00	6.67	0.58	7.00	1.00	6.67	0.58
Target Setting (8)	7.33	1.15	5.67	0.58**	6.67	0.58	7.33	0.58	6.33	0.58	7.00	1.00
Project Preparation (42)	35.33	1.53	36.00	2.65	36.67	2.52	34.33	2.08	34.33	2.08	39.33	0.58
Overall (100)	87.00	4.58	87.33	2.52	83.67	2.08	82.67	2.31	81.00	1.73	89.33	2.52

Table 4, illustrated that supervised staffs of each health center had knowledge and skills on problems solving process at high level (each health center  $\bar{x}$  over 80), however, when analyzed each question, the finding was, the fifth health center had knowledge and skills on problems solving process at low level ( $\bar{x} = 4.67$ ,  $SD = 1.15$ ) and the second health center had knowledge and skills on target setting at moderate level ( $\bar{x} = 5.67$ ,  $SD = 0.58$ )

#### 4.4 Data on the Assessment of Supervised Staffs' Satisfaction with Supervision (table 5 - 11).

**Table 5: Median and standard deviation of score from the assessment on supervised staffs' satisfaction with 5 aspects supervision**

Satisfaction with supervision	Supervised Staffs		
	n	$\bar{x}$	S.D.
Supervisor's characteristic (6items18point)	18	14.61	1.61
Supervision Pattern (9items 27point)	18	22.06	1.86
Supervision Procedure (6items18point)	18	12.78	2.13
Supervision Duration (4items12point)	18	6.94	1.73
Supervision Content (8items24point)	18	19.22	1.06
Overall	18	75.61	4.58

Table 5 illustrated score of supervised staffs' satisfaction towards 5 aspects of supervision (18 persons) resulted  $\bar{x} = 75.61$  and  $SD = 4.58$  and mean score of each aspect are as followed: Supervisors' Characteristic  $\bar{x}=14.64, SD= 1.6.$ , Supervision Pattern  $\bar{x}=22.06, SD=1.86$ . Supervision Procedure  $\bar{x} = 12.78, SD =2.13$ , Supervision duration  $\bar{x} = 6.94, SD = 1.73$  and Supervision Content  $\bar{x}=19.22, SD=1.06$ .

**Table 6 : Level of supervised staffs' satisfaction with 5 aspects supervision**

Level	N	Percentage
High	0	0
Moderate	11	61.1
Low	7	38.9
Total	18	100

Table 6 illustrated that most supervised staffs 61.1 per cent satisfied with supervision at moderate level and 38.9 per cent had low satisfaction.

**Table 7 : Level of satisfaction with supervisors' characteristics**

Level	N	Percentage
High	6	33.5
Moderate	8	44.4
Low	4	22.3
Total	18	100

Table 7 illustrated that most of supervised staffs, 44.4 per cent satisfied with supervisors' characteristics at moderate level and 33.3 per cent had high satisfaction.

**Table 8 : Level of satisfaction with Supervision Pattern**

Supervision Pattern	Level	N	Percentage
	High	7	38.9
	Moderate	6	33.3
	Low	5	27.8
	Totall	18	100

Table 8 illustrated that most of supervised staffs, 38.9 percent satisfied with Supervision Pattern at high and 33.3 percent had moderate Satisfaction.

**Table 9 : Level of satisfaction with Supervision Procedure**

<b>Supervision Procedure</b>	<b>Level</b>	<b>N</b>	<b>Percentage</b>
	High	1	5.6
	Moderate	10	55.5
	Low	7	38.9
	Totall	18	100

Table 9 illustrated that most of supervised staffs, 55.5 percent satisfied with Supervision Procedure at moderate and 38.9 percent at Low Satisfaction.

**Table 10 : Level of satisfaction with Supervision Duration**

<b>Supervision Duration</b>	<b>Level</b>	<b>N</b>	<b>Percentage</b>
	High	0	0.0
	Moderate	5	27.8
	Low	13	72.2
	Totall	18	100

Table 10 illustrated that most of supervised staffs, 72.2 percent satisfied with Supervision Duration at low and 27.8 percent at moderate satisfaction.

**Table 11 : Level f satisfaction with Supervision Content**

<b>Supervision Content</b>	<b>Level</b>	<b>N</b>	<b>Percentage</b>
	High	2	11.1
	Moderate	10	55.6
	Low	6	33.3
	Totall	18	100

Table 11 illustrated that most of supervised staffs 55.6 percent satisfied with Supervision Content at moderate and 33.3 percent at Low satisfaction.