

## **2007 ASEAN-U.S. Enhanced Partnership Medical Device Workshop**

### **Possible Future Areas for Cooperation Under ASEAN Enhanced Partnership Relating to Medical Devices**

# **The Needs of Healthcare Providers**

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All Healthcare Regulators makes decisions that usually  
Affect the entire Country's Healthcare system

**By definition, Healthcare Regulators are Healthcare Leaders**

Leadership is not about power, not about authority,  
not about title, not about intelligence nor charisma.

Leadership is all about influence.

Influence is ability to change another person's way of thinking.

To change another person's thinking, first you must understand  
The needs and aspiration of an individual.

Unfortunately Human Needs vary by individual preference,  
by gender, by culture, by upbringing, by profession, by  
social status, by education and other factors.

As a Regulators, if you understand what are the needs of your Healthcare workers, you have 2 BIG advantages as follows:

•You understand current level of satisfaction or dissatisfaction

•You know what action produces biggest staff satisfaction

As a Regulator with these knowledge, you will have ability

To attract good staff

To motivate good staff

To retain good staff

Most healthcare worker's needs can be classified under 4 categories



# Survey of Vietnamese Healthcare workers

## **Objective:**

*Conduct a survey to understand*

- 1. what are the needs of Vietnamese healthcare providers*
- 2. What extent are these needs being fulfilled.*
- 3. What is their perception of government regulators*

*Healthcare Provider include surgeons, internist, nurses, pharmacist and admin staff*

## **Survey Methodology**

*All surveys are done face to face and survey staff spent at least 15 minutes with each respondent. All surveys are anonymous to ensure true response, minimize bias and avoid fear of repercussions (for negative response). This should produce the Most reliable answers.*

## Sampling Method

*Survey covered 120 professional stratified for 2 criteria*

- 1. For hospital size*
- 2. For profession*

		Hospital size (beds)		
		<300 bed	300-500 beds	>500 beds
P r o f e s s i o n	Doctors	<b>10</b>	<b>10</b>	<b>10</b>
	Internist	<b>10</b>	<b>10</b>	<b>10</b>
	Nurses	<b>10</b>	<b>10</b>	<b>10</b>
	Others	<b>10</b>	<b>10</b>	<b>10</b>
	<i>total</i>	<b>40</b>	<b>40</b>	<b>40</b>

## Interpreting The Response

*Each healthcare worker was asked to do 3 things:*

- 1. force rank 31 needs in order of importance*
- 2. For each need, rate their satisfaction on a scale of 1 to 4*
- 3. State their overall job satisfaction (1 to 4)*



4 > 80% of his/her need is being met



3 > 60% of his/her need is being met



2 > 30% of his/her need is being met



1 < 30% of his/her need is being met

## **Limitations of Survey**

- 1. Although a sample size of 120 will yield statistically significant Results, it may not be big enough to fully represent population*
- 2. Sampling method is stratified basis not random basis.*
- 3. Regression Analysis demonstrate only the correlation between X and Y variable but does not demonstrate a causal relationship between X and Y .*
- 4. All regression results are statistically significant, But these have not been independently validated.*



## **Methodology of Analysis**

1. *Performed a Multi-variate regression analysis for all Healthcare providers*
2. *Performed a separate multivariate analysis for*
  - *For Surgeons*
  - *For internist*
  - *For nurses*
  - *For Others(pharmacist, admin, etc)*
3. *From 31 X variables (Needs), we identify the X variables Considered as best predictors of Y variable (Overall Satisfaction) .*

For overall Healthcare workers, the result is statistically very significant (all *t* stat >2; *P* value <0.05)

## Results -All Healthcare workers

	<i>Coefficient</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-	#N/A	#N/A	#N/A	#N/A	#N/A
Fair Salary	0.47	0.13	3.71	0.000	0.21	0.72
Permission to open private clinics	0.26	0.08	3.37	0.001	0.11	0.42
Hospital will expand	0.22	0.08	2.70	0.009	0.06	0.38
Reasonable workload	0.22	0.09	2.42	0.019	0.04	0.41
Training - Clinical Knowledge	0.24	0.08	2.96	0.005	0.08	0.41

To find Overall Satisfaction, averaging the satisfaction of each individual need (X) can indeed be very misleading

**Results -All Healthcare workers**

	<i>Coefficients</i>	<i>Average Satisfaction</i>
Fair Salary	0.47	2.11
Permission to open private clinics	0.26	0.77
Hospital will expand	0.22	2.20
Reasonable workload	0.22	1.80
Training - Clinical Knowledge	0.24	2.07
Average of above	-	1.79

<i>Perceived Regulator's Role on Satisfaction</i>
3.49
3.53
3.24
2.39
2.31
2.99

***Predicted Overall Satisfaction***

2.57

For Surgeons, only 3 variables are statistically significant and one merely meaningful (*due to smaller sample size*)

## Results –Surgeon’s Satisfaction

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0.00	#N/A	#N/A	#N/A	#N/A	#N/A
Fair Salary	0.59	0.21	2.74	0.02	0.11	1.06
Usage of high quality products & equipments	0.27	0.17	1.63	0.13	(0.10)	0.64
Hospital board fair & provide good direction	0.35	0.15	2.24	0.05	0.01	0.69
Permission to open private clinics	0.33	0.13	2.47	0.03	0.04	0.63

To predict Surgeon Satisfaction, averaging the satisfaction of 4 individual need (X) can indeed be very dangerous

## Results –Surgeon’s Satisfaction

	<i>Coefficients</i>	<i>Average Satisfaction</i>	<i>Perceived Regulator's Role on Satisfaction</i>
Fair Salary	0.59	2.07	3.69
Permission to open private	0.33	1.20	3.27
Hospital board fair & provide	0.35	2.07	2.21
Usage of high quality produ	0.27	2.00	2.74
Average of above		1.84	2.98

<b><i>Predicted Overall Satisfaction</i></b>		2.88
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For Internist, only 3 variables are statistically significant and one almost so (*due to smaller sample size*)

## **Results – Internist’s Satisfaction**

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-	#N/A	#N/A	#N/A	#N/A	#N/A
Hospital will expand	0.41	0.11	3.66	0.00	0.17	0.64
Usage of high quality products & equipments	0.30	0.11	2.68	0.02	0.06	0.54
Salary will increase	0.21	0.10	2.03	0.06	(0.01)	0.43
Professional indemnity insurance against laws	0.18	0.08	2.19	0.05	0.00	0.36

Internist has very low Overall satisfaction,  
 Government has more than 60% impact.

## Results – Internist’s Satisfaction

	<i>Coefficients</i>	<i>Average Satisfaction</i>
Hospital will expand	0.41	2.56
Usage of high quality products	0.30	2.33
Salary will increase	0.21	1.33
Professional indemnity insurance	0.18	1.61
Average of above	-	1.96

<i>Perceived Regulator's Role on Satisfaction</i>
3.20
2.83
3.45
3.05
3.13

<b><i>Predicted Overall Satisfaction</i></b>		2.31
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For Nurses, only 1 statistically significant  
and 2 merely meaningful (*due to smaller sample size*)

## **Results – Nurse’s Satisfaction**

	<i>Coefficient</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-	#N/A	#N/A	#N/A	#N/A	#N/A
Fair Salary	0.72	0.11	6.58	0.00	0.48	0.95
Reasonable workload	0.17	0.10	1.67	0.12	(0.05)	0.39
Usage of high quality	0.22	0.12	1.81	0.09	(0.04)	0.47



Nurse Overall satisfaction- same story- averaging of X is a dangerous business to predict Y.

## Results – Nurse’s Satisfaction

	<i>Coefficients</i>	<i>Average Satisfaction</i>	<i>Perceived Regulator's Role on Satisfaction</i>
Fair Salary	0.72	2.71	3.41
Reasonable workload	0.17	2.41	2.32
Usage of high quality products	0.22	2.59	2.79
Average of above	-	2.57	2.84
<b><i>Predicted Overall Satisfaction</i></b>		2.91	

For Others, only 2 variable identified  
 But both highly statistically significant

## **Results – Other’s Satisfaction**

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-	#N/A	#N/A	#N/A	#N/A	#N/A
Fair Salary	0.73	0.21	3.47	0.01	0.26	1.20
Good infrastructure	0.60	0.18	3.28	0.01	0.19	1.01

Again, the low Overall satisfaction,  
Government has close to 60% impact.

## Results – Other’s Satisfaction

	<i>Coefficients</i>	<i>Average Satisfaction</i>	<i>Perceived Regulator's Role on Satisfaction</i>
Fair Salary	0.73	1.58	2.86
Good Infrastruture	0.6	1.58	2.59
Average of above		1.58	2.73
<b><i>Predicted Overall Satisfaction</i></b>		2.10	

*As Regulators and Healthcare Leaders,*

*What does this mean for you?*

# For Healthcare workers in general- focus on 5 things

**Training- (0.24)  
Clinical**

**Individual Growth**

**Hospital (0.22)  
will expand**

**Exciting Future**

**Fair salary (0.47)**

**Private clinic**

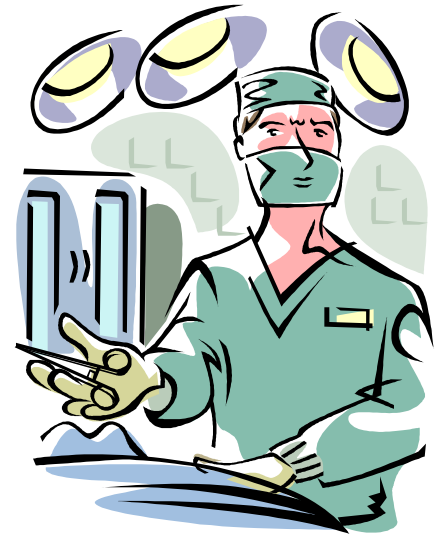
**Permission (0.26)**

**Attractive Compensation**

**Reasonable (0.22)  
workload**

**Great Work-Place**

# Surgeon- they focus on Present Situation



**Individual Growth**

**Exciting Future**

**Fair salary (0.59)**

**Private clinic  
Permission (0.33)**

**Attractive Compensation**

**Hospital Board  
Fair (0.35)**

**Usage Quality  
Product (0.27)**

**Great Work-Place**

# Internist- focus more on future



**Individual Growth**

**Hospital (0.41)  
will expand**

**Salary (0.21)  
will increase**

**Exciting Future**

**Attractive Compensation**

**Usage Quality  
Product (0.30)**

**Prof. Indemnity  
Insurance (0.18)**

**Great Work-Place**

# For Nurses- focus on working conditions

**Individual Growth**

**Exciting Future**



**Fair salary (0.72)**

**Attractive Compensation**

**Usage Quality Product (0.22)**

**Reasonable Workload (0.17)**

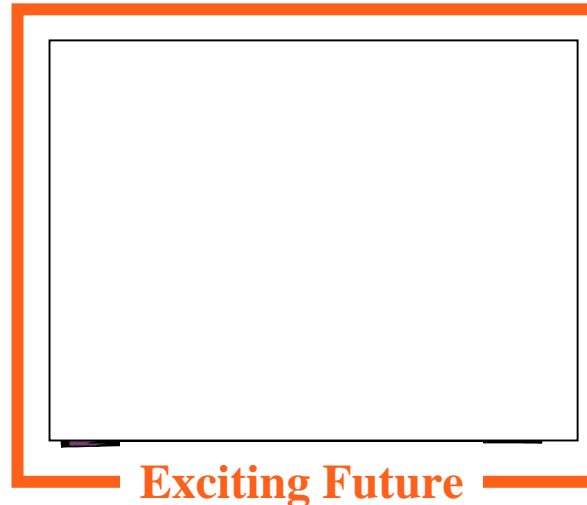
**Great Work-Place**



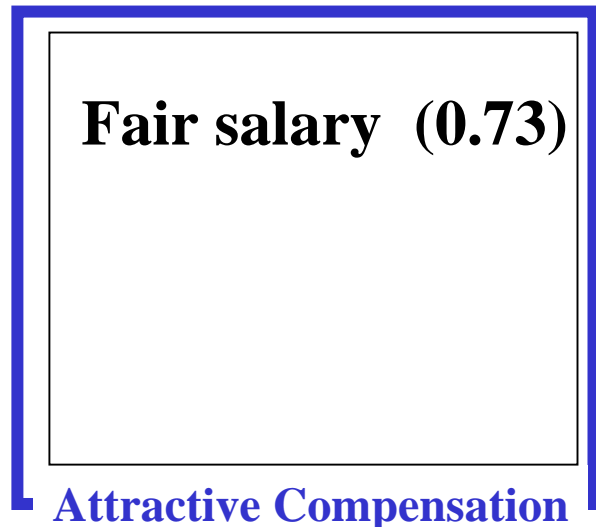
# For Others - focus on Infrastructure



**Individual Growth**

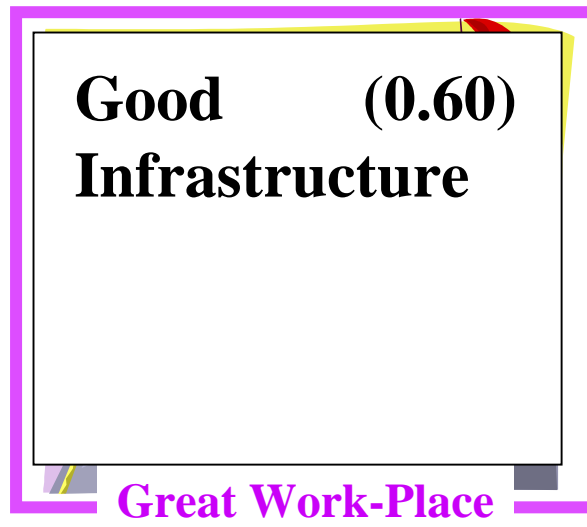


**Exciting Future**



**Fair salary (0.73)**

**Attractive Compensation**



**Good (0.60)**  
**Infrastructure**

**Great Work-Place**

*A Question Is Raised*

*The Answer Lies  
In Each of You*

*Thank You*