2.5 Calculating the Economic Impact of Health & Productivity on the Workplace

Calculating Total Health Costs

- Cost of Medical Care +
- Cost of Absenteeism +
- Cost of Presenteeism =
- TOTAL HEALTH COST

Cost of Absenteeism

- Full salary of replacement worker
- Cost of temporary replacement worker
- Overtime
- Lost revenue of worker or replacement
- Loss of value to team
- Cost of missed deadlines, poor quality or lost opportunities

Absenteeism Cost Modifiers

- Hourly vs. salaried workers
- Type of industry
- Size and type of company
- Inability to find equal replacement worker
- Team effect
- Impact of fall in output
- Cost of missed work >> wage replacement

Cost of Absence Multiplier

- Attempts to adjust for these other factors
- Varies by job and industry type
- Example: Fast food worker 1.0 x wages
- Example: Paralegal 1.93 x wages
- Default factor: 1.44 x wages

Cost of Presenteeism

- Working at less than full capacity or productivity
- Usually measured as a proportion or percentage of full capacity or output and converted to “lost days.”
- Same effects and concerns as absenteeism
- “Present but partially absent”

Example

Company ABC					
Employees	1000				
Average daily wage	$400				
	Condition A		Condition B		
Prevalence	30%		10%		
Ave. Medical Cost per year	$200		$600		
Absenteeism Loss per year	1.2		5.6		
Presenteeism Loss per year	17.3		4.3		
Cost of Condition A					
	Employees	Prevalence	Cost	Wages	Cost
Medical	1000	30%	$200		$ 60,000
Absence	1000	30%	1.2	$400	$ 144,000
Presenteeism	1000	30%	17.3	$400	$ 2,076,000
			Total Cost of Condition A		$ 2,280,000
Cost of Condition B					
	Employees	Prevalence	Cost	Wages	Cost
Medical	1000	10%	$600	$400	$ 60,000
Absence	1000	10%	5.6	$400	$ 224,000
Presenteeism	1000	10%	4.3	$400	$ 172,000
			Total Cost of Condition B		$ 456,000

Calculate Intervention Costs

- Personnel
- Supplies
- Equipment
- Marketing
- Incentives
- Evaluation
- Prevalence of condition
- Projected participation
- Potential improvement
- Duration

Calculate Total Savings and ROI

$$Cost\ of\ Medical\ Care + Cost\ of\ Absenteeism + Cost\ of\ Presenteeism = TOTAL\ HEALTH\ COST$$

$$Pre\ -post\ intervention\ TOTAL\ HEALTH\ costs = Projected\ TOTAL\ Savings$$

$$\frac{Projected\ TOTAL\ Savings}{Cost\ of\ Intervention} = ROI$$

ROI and VOI

ROI Return on Investment	VOI Value of Investment
Financial Indicators	Financial Indicators/Net Savings
	Participation Indicators
	Preventive Screening Indicators
	Health Risk Indicators
	Clinical Indicators
	Utilization Indicators
	Productivity Indicators
	Shareholder Value

Loeppke RR. The value of health and the power of prevention. *Int J of Workplace Health Management.* 2008;1:95-108.