Cost Benefit Analysis of an Economic Incentive Model

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Table of Contents

• Why the incentive system was introduced
• Who can profit from the system
• Which preventive measures give premiums
• Qualitative benefits from the system
• Bonus point elasticity
• Correlation with accident/disease rate development
• Cost-benefit balance
• Conclusion
Why the incentive system was introduced

- Incentive regardless of accident rate and costs
- Road accident prevention
- Prevention of occupational diseases
- Reinforcement of national prevention targets
- Means to evaluate the actual prevention status
Which preventive measures give premiums

<table>
<thead>
<tr>
<th>Safety</th>
<th>Health</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection against knife accidents</td>
<td>Skin protection</td>
<td>Reintegration of long-term patients</td>
</tr>
<tr>
<td>Protection against falls and slips</td>
<td>Protection against cold</td>
<td>Training more than legally required</td>
</tr>
<tr>
<td>Machines</td>
<td>Protection at VDU work</td>
<td>Audited OHS system</td>
</tr>
<tr>
<td>Traffic safety</td>
<td>Ergonomics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Noise protection</td>
<td></td>
</tr>
</tbody>
</table>
Preventive measures - example

Do you solely use knives with a rounded point to cut sausages in your shop?

- [ ] yes  - [x] no

Do you always use safety knives to open spice bags and cut sausage skins?

- [x] yes  - [ ] no

What percentage of the total of your machines have been tested by an independent institution for safety?

- [ ]

For how many employees do you pay physical training to help strengthen their vertebral column?

- [ ]
Qualitative benefits from the system I

- skin protection
- traffic safety
- protection against falls and slips
- protection against knife accidents
- training more than legally required
- protection at VDU work
- ergonomics
- protection against cold
- safety of machines

Degree of target fulfillment in %

2007
2002
Qualitative benefits from the system II

- skin protection
- traffic safety
- protection against falls and slips
- protection against knife accidents
- training more than legally required
- protection at VDU work
- ergonomics
- protection against cold
- safety of machines

Target fulfillment percentage points

- difference 6-year versus first ever participants
Qualitative benefits from the system III

Number of audited OHS systems

- 2005
- 2006
- 2007
- 2008

Number of audited OHS systems
Bonus point elasticity I

- Safety of machines
- Protection against cold
- Ergonomics
- Protection at VDU work
- Training more than legally required
- Protection against knife accidents
- Protection against falls and slips
- Traffic safety
- Skin protection

Target achievement in % vs. Bonus points.
Correlation with accident/disease rate development I

- Optimum usage of driver's training
- No driver's training

Road accidents per 1000 FTE

- 2004
- 2005
- 2006
- 2007
Correlation with accident/disease rate development II

\[ y = -49.905x + 187.94 \]

\[ R^2 = 0.5591 \]
Correlation with accident/disease rate development III

Accident rate development per 1000 FTE from 2001 to 2007:
- 6-year participants
- Participants 2007
- Non-participants 2007

Year:
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007

Accidents per 1000 FTE:
- 100
- 90
- 80
- 70
- 60
- 50
Correlation with accident/disease rate development IV

Skin diseases reported per 1000 FTE

- Red line: never participated in system
- Blue line: participated in system and campaign

Cost-benefit balance

- premiums granted since 2002
- theoretical accident costs reduction since 2002

<table>
<thead>
<tr>
<th>Year</th>
<th>In million €</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>1</td>
</tr>
<tr>
<td>2003</td>
<td>2</td>
</tr>
<tr>
<td>2004</td>
<td>3</td>
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<td>2005</td>
<td>5</td>
</tr>
<tr>
<td>2006</td>
<td>7</td>
</tr>
<tr>
<td>2007</td>
<td>9</td>
</tr>
</tbody>
</table>
The incentive system motivates for prevention

Positive development of target achievement

Not only the concrete measures are reinforced

Positive effect on OSH indicators

Expenditures are overcompensated by cost reduction

The collected data can serve as a benchmark