LIFESTYLE, HEALTH AND COSTS – what do available evidence suggest?

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Background

• Individual choices influence health
• What limits are there regarding information/knowledge that obstruct rational behaviour?
• What tools are available for influencing individual health-related behaviour, and how effective are they?
• primary- and secondary prevention
Outline

• Focus on smoking, alcohol abuse; dietary habits, obesity
• As a background: overall development of behaviours and consequences in the Nordic countries
• Epidemiological evidence regarding health outcomes associated with risky behaviour
• Evidence regarding primary and secondary prevention
• Cost effectiveness of interventions

Human-capital theory of individual health behaviours

• Behaviours that influence health are regarded as investments (or disinvestments) in health
• Actions may be taken mainly as a way to influence health
  – for instance, decisions concerning physical exercise and diet (precautionary health investments) and medical care (to restore health)
• ... or may have unintentional effects on health
  – smoking and drinking
• The individual is regarded as trading future health for current welfare when deciding to smoke
Human-capital theory of individual health behaviours

• What are the determinants of individual health-related behaviours?

• Individual preferences for different lifestyle factors determine the balance between current welfare and future health
• Individual knowledge and ability concerning health risks and how to combine goods in order to achieve intended health effects
• Individual time preferences (impatience)
• Family structure, labour market conditions, etc

Human-capital theory of individual health behaviours

• What are the determinants of individual health-related behaviours?
• What can be influenced?

• Knowledge and ability can be influenced
• Imperfect knowledge means that intended health effects are not likely to be achieved
• The Nordic countries show the following trends in health-related behaviours ....
Alcohol consumption in the Nordic countries

![Graph showing annual alcohol consumption in liters/cap for different Nordic countries from 1960 to 2018.]

Other risky behaviours

- Inadequate physical exercise – about 70 % of the EU population (high-income countries)
- Dietary habits leading to obesity - > 20 % of the EU population (high-income countries)
- Relationship between diet and specific health outcomes is unclear high-income countries
• These behaviours have produced the following health outcomes, ...

Health outcomes in the Nordic countries

Figure 3. Deaths due to lung cancer (per 100,000)
- Denmark
- Finland
- Iceland
- Norway
- Sweden
Health outcomes in the Nordic countries

Figure 4. Deaths due to diseases of the circulatory system (per 100 000)

Figure 5. Deaths due to diseases of the respiratory system (per 100 000)
Health outcomes in the Nordic countries

Figure 6. Deaths due to liver cirrhosis (per 100,000)

- These outcomes correspond to the following health-care related costs, ...
Healthcare costs in the Nordic countries

Figure 8. Healthcare expenditures as % of GDP 1971 - 2009

- But, at the same time the expected length of life has increased substantially
Health outcomes in the Nordic countries

Costs that can be attributed to specific behaviours

- Smoking: about 1% of GDP
- Drinking: about 1% of GDP
- Poor dietary habits – Obesity: 0.5% of GDP
- Physical exercise: about 0.05% of GDP
Primary and secondary prevention

- Weak evidence as regards effectiveness and cost-effectiveness
- Except for smoking
Conclusions

- The epidemiological evidence regarding diet and health risks is imperfect
- The effectiveness of primary and secondary prevention is largely unknown
- The cost-effectiveness of interventions in all 5 areas needs to be further studied. This is so because published cost-effectiveness studies do not take into account that the implementation of new policy initiatives needs to be financed