Policy briefs to increase equality in health

Supporting school completion to reduce health inequalities

Individual placement and support employment

Rising tobacco taxes reduces health inequalities
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Introduction

The fact that inequalities in health by socio-economic position have substantially widened over time in the Nordic countries is something that worries Nordic public health researchers as well as politicians and policy makers. To exchange knowledge and find new ways of tackling health inequalities is therefore a priority in the Nordic cooperation.

This report contains three policy briefs on interventions aiming to increase equality in health. The policy briefs were produced in the Nordic project Equal Health – Prerequisite at National Level. The project is a part of The Nordic Arena for Public Health Issue’s work on reducing social inequalities in health in the Nordic region.

The Finnish Institute for Health and Welfare (THL) has been leading the work producing the policy briefs, in cooperation with Nordic colleagues.
Supporting school completion to reduce health inequalities

Every year there are a lot of young people who have not completed school

In the Nordic countries (Denmark, Finland, Norway, and Sweden) the level of education has become increasingly important for individual employment. Thus, in year 1999 in unweighted average, 66 % of men and women age 25–29 [1] in the Nordic countries with no secondary school graduation were employed. Fifteen years later in 2014, the corresponding rate was 54 %. In contrast, during the same period, the employment rate for young men and women in the Nordic countries with tertiary education has been about 81 % [1] with no major change over time. The employment rate for the highly educated group has varied with the economy, but there is no clear trend.

Accordingly, it is important that young people graduate from upper secondary school. However, the graduation rates in 2016 were 89 % in Finland, 82 % in Denmark, 80 % in Norway and 77 % in Sweden (see Figure 1) [2].

Fewer men than women graduate, for example, in Sweden, 75 % of the men had graduated from upper secondary school while under the age of 25 whereas 80 % of the women had reached that level in the same age bracket [2].
Education is one of the most effective means of preventing the social exclusion of the young. There are substantial differences in the health behaviours and health outcomes of people with different levels of education. In Sweden, in 2017, the remaining average life expectancy at 30 years of age was 51.0 years among women and 48.3 years among men in the group with only compulsory education. In the group with upper secondary education, the remaining average life expectancy was 54.5 years for women and 52.5 years for men. In the group with post-secondary education, the remaining average life expectancy was 57.0 years for women and 54.3 years for men. Between 2012 and 2017, the average life expectancy at 30 years of age increased most among those with post-secondary education and the least among those with only compulsory education [3].

There are effective programmes to support school completion

There are many ways to improve schooling outcomes. Hattie reviewed 90 000 studies regarding 250 different influences on student achievement and the methods used to improve students’ school achievement [4, 5]. One group of methods aimed at supporting school completion. That is especially relevant at the end of the compulsory primary school. In general, it is important for
interventions to happen as early as possible (with early reflecting both age and being early in the process of “problem development”).

Wilson et al. reviewed studies of the effects of support school completion and intervention programmes on school completion [6]. This review was updated four years later with 152 studies that involved programmes geared toward general or at-risk populations of school-aged youth. From these studies, 317 independent samples could be analysed [7]. Most of the interventions targeted students during the last years of primary school when the students are about 15 years of age. These studies analysed the completion rate in upper secondary education as the outcome. The programmes were carried out during a period of time that averaged two years, and they targeted all students in a school or a risk group of classes. That means the programmes aimed at supporting school completion and not at treating individual students that were already about to drop out.

Most of the studies that were reviewed by Wilson et al. had been carried out in the USA, where 83 % had completed upper secondary school by the age of 25 in 2015 [2]. Some of the intervention types are relevant for the Nordic countries even if there are differences in the school system etc. These programmes are listed in Table 1, together with the reported increases of secondary school graduation rates. In 75 % of the study samples, most students were from racial or ethnic minorities; similarly, most samples predominantly included students from low-income families.

Table 1. The increase of upper secondary school graduation rates by means of school completion interventions [7].

<table>
<thead>
<tr>
<th>Programme type</th>
<th>The number of study arms</th>
<th>The mean increase of upper secondary school graduation rates in experimental groups compared to control groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance monitoring and contingencies programmes</td>
<td>26</td>
<td>7 %</td>
</tr>
<tr>
<td>Community service programmes</td>
<td>24</td>
<td>6 %</td>
</tr>
<tr>
<td>Mentoring, counselling programmes</td>
<td>27</td>
<td>9 %</td>
</tr>
<tr>
<td>Social-emotional skills training programmes</td>
<td>12</td>
<td>14 %</td>
</tr>
</tbody>
</table>
In attendance monitoring and contingencies programmes, staff monitor students’ attendance in school and provide mentoring services etc. in order to increase attendance and school participation.

In community service programmes, students plan and carry out community service projects. These programmes are commonly coupled with a life skills curriculum. Such activities can also be organised by NGOs [8].

The mentoring and counselling programmes assign trained adult mentors or counsellors in order to help students focus on their schoolwork or career objectives and deal with personal issues.

Social-emotional skills training programmes included socio-emotional skills training and other programmes related to cognitive behaviour therapy principles.

School and class restructuring programmes included an increase in the number of teachers for a given number of students, which enabled smaller classes. In some programmes, personalised learning settings were created in which students spend more time with fewer teachers, which created personalised instruction for the students.

Supplemental academic services programmes included remedial education, tutoring and homework assistance.

Vocational training programmes included work-orientated courses and internships at workplaces. The idea was to help the students to think about future life at work.

### Conclusion

Overall, the results indicated that most school- and community-based programmes were effective in increasing school completion [4, 6, 7, 8].
Because these programmes are commonly targeted to high-risk students and low-income communities, they are likely to narrow academic achievement gaps and advance health equity [7].

All the interventions increased the graduation rates by a figure between 6 and 16%. The reviews did not present the costs of the interventions, yet the most modest method appeared to be attendance monitoring, which probably cost the least and still increased graduation rates by 6% [7].

**Recommendation**

Policymakers should finance programmes helping school completion and practitioners should implement them and select those programmes that are most suitable to the local conditions. Attendance monitoring is probably the least costly and seems to be quite effective.
References


Individual placement and support employment

Too many individuals with severe mental health problems are unemployed

Severe mental health illness is a significant public health problem that is more common in socially disadvantaged groups [1]. People in socially disadvantaged groups have a higher risk of poverty and social exclusion and they often have a low level of education and a general low standard of living. Most individuals with severe mental health problems are unemployed.

Traditional employment interventions have been oriented towards sheltered work and training, with the goal of competitive employment after some time [2].

In Norway only 10 % of working-age individuals with schizophrenia were found to be employed [3]. Two systematic reviews of longitudinal studies that included a comparison group revealed the beneficial health effects of a return to work [4, 5]. The challenge is to accomplish such a return to work.

Individual placement and support is an effective method

The best-documented method for a return to work is a method named individual placement and support (IPS). IPS is defined by the following principles [6]:

- the inclusion of all clients who want to work,
- a focus on competitive employment,
- a rapid job search and no required prevocational skills training,
- paying attention to client preferences about desired work and the disclosure of mental illness to prospective employers and
- follow-along support after a job is obtained.

A focus on competitive employment is important since sheltered employment seems to benefit the individuals less [7].
In a recently published Norwegian systematic review, 21 randomised controlled trials of IPS were identified [2]. The included studies had been published during 1995–2015 and had been conducted in the US, the UK, Australia, Canada, Hong Kong, Japan, the Netherlands, Bulgaria, Italy, Switzerland, Germany, Spain, Sweden and Norway. The follow-up time varied from six months to five years, but the majority were only followed-up for 12 – 24 months. Most of the studies included people with serious mental illness; other samples included people with severe physical injuries or developmental disorders. Control interventions were predominantly variations of the usual services and were often sheltered work and training, and sometimes group programmes.

The authors found that the rate of competitive employment was doubled in the IPS group. The IPS group spent more time in competitive work and had slightly higher incomes. No effect, however, was found on the quality of life. The authors thought that the reason was the relatively short follow-up time. Since other studies have demonstrated that employment augments mental health [4, 5], improved mental health would be expected in the long run in the IPS group.

Another systematic review demonstrated the similar positive effects of IPS [8]. This review found that the effects are robust across a wide spectrum of conditions and populations. Participants included both young adults and older adults, and people with a range of significant life challenges, including serious mental illness, posttraumatic stress disorder, substance-use disorders, criminal justice involvement and years of dependence on social security disability insurance.

**Supported employment is more cost-effective than the regularly used methods**

The different components of IPS entail costs that might limit the use of IPS. Accordingly, cost-effectiveness studies are important to consider. In a Norwegian systematic review, six cost-effectiveness studies were identified. Most of the studies included participants with serious mental illness, but some studies included people with severe physical injuries or developmental disorders [2].

Participants who received IPS were twice as likely to gain competitive employment compared to participants who received other interventions. There were also positive effects from time spent...
in competitive work, income and cost-effectiveness. Although, IPS may not have any effect on the quality of life, psychological symptoms or psychiatric hospitalisations [2].

These studies suggest that the costs of IPS were comparable to the costs of the control interventions, in other words, the regular methods that were used to enhance employment for individuals with mental health disorders. Yet IPS leads to more employment.

**IPS in the Nordic countries demonstrated positive effects**

IPS has been introduced in the Nordic countries [9]. A randomised controlled trial in Sweden has demonstrated the positive effects of IPS on mental health patients with the control group only receiving ordinary vocational rehabilitation [10]. In Norway, Reme et al. have demonstrated the positive effects of IPS on depression and anxiety [11]. In Denmark, a randomised controlled trial has been reported [12]. A limited use of IPS has also been reported in Finland [13].

IPS has been developed in the US and UK. The structures of services in these countries differ partly from comparable services in the Nordic countries. Accordingly, some adaptations might be needed [9]. For example, questions arise over which authority should employ job coaches and the effects of union rules. Yet, since the positive effects of IPS have also been demonstrated in the Nordic countries, it would seem that it is possible to handle these adaptations.

**Recommendation**

IPS is an evidence-based model of supported employment for people with serious mental illnesses. IPS has been consistently shown to be a better programme model than any other alternative.

IPS is effective in a Swedish context in terms of gaining employment and becoming integrated within the local community [10]. Also, in Norway the positive effects of IPS have been demonstrated. It may be assumed that in other Nordic countries the results may be just as positive.
IPS ought to be routinely offered for individuals with severe mental disorders and should be tested with other groups with employment difficulties.
References


Rising tobacco taxes reduces health inequalities

Smoking is an important cause of inequalities in health

In the Nordic countries in 2017, 11% of all disability-adjusted life years are due to smoking, the lowest being in Finland (9%), Sweden and Norway (11%) and highest in Denmark (15%) [1]. That means that smoking is still the single most important amendable cause of disability-adjusted life years. In Finland, smoking ranks as risk factor Number 4 and it is risk factor Number 1 in Sweden, Norway and Denmark [1].

It is estimated that smoking-related diseases are responsible for 1.5–6.8% of the national health system expenditure and 0.22–0.88% of GDP in a country [2].

In the Nordic countries, smoking is more common among people with a low level of education [3]. That means that in the Nordic countries, if smoking among people with a low level of education could be reduced to the level of highly educated people, all inequalities in mortality would be reduced by 10% in men and 5% in women [3].

Tackling inequalities in smoking is therefore vital to any strategy that is aimed at avoiding a further widening of socioeconomic inequalities in health. Tobacco control is also relevant to the achievement of many United Nations Sustainable Development Goals, including Goal 10, “Reduce inequality within and among countries” [4].

Increased taxes will reduce the use of tobacco and increase equalities in health

Lower socioeconomic groups are more likely to decrease their amount of cigarettes consumed in response to rising tobacco price [5, 6, 7].
A systematic review of different methods for tobacco control identified 1150 published scientific studies on the effects of different measures [8]. In 225 of the studies, increased taxes on tobacco products were found to reduce both tobacco consumption and smoking prevalence. The next best-supported method was to protect people from exposure to smoking, for example, by banning smoking in public places – this was supported by 169 studies. Thus, an increase of the taxes on tobacco is the best-supported way to reduce smoking.

In another systematic review, the effects of different methods for tobacco control on inequalities in health were analysed [9]. The authors identified 117 studies in total. Out of these, 27 studies analysed the equity impact of increased taxes. In half of these studies, equalities increased. No other method was as effective in increasing equality. Some methods decrease equalities in health, for example, mass media campaigns. An additional systematic review also found that an increase of taxes decreased inequalities [10].

**Raising taxes is an effective way of reducing smoking**

A British study (from 1994) demonstrated that a 1 % increase of the price of cigarettes will result in a 1 % decrease of cigarette consumption in the lowest socioeconomic status group while there will be no statistically significant effect in the highest (socioeconomic) SES group [11]. For women in the lowest SES group, the effect will be a 0.9 % decrease and, in the highest group, a 0.5 % decrease. A Nordic study indicated that a 10 % increase in tobacco prices will reduce consumption by about 4 % [10].

**Arguments against increased taxes on tobacco**

There are two major arguments against increased taxes on tobacco: it goes against public opinion and the risk of increased smuggling.

**An increase of taxes might be unpopular**

An increase of taxes might be unpopular even though only a minority of the population smoke. Yet public opinion on smoking has changed
dramatically during the last 50 years in the Nordic countries. At the end of the 1960s smoking was an esteemed habit. Today most people look down on smoking. The change in attitude is due to the presentation of scientific studies, media campaigns, smoking bans at public places and the available smoking cessation support. Although each of these measures in isolation only has a small effect on the habit of smoking, they interact and affect the public attitude towards smoking. Thus, all tobacco control measures will affect public opinion, which in turn facilitates an increase of tobacco taxes.

**Higher taxes lead to increased smuggling and the use of counterfeit tobacco**

When taxes on tobacco products increased in the latter part of the 20th century, it was claimed that increased taxes merely increased smuggling. Accordingly, it was thought that increased taxes would neither result in improved health nor any financial gains for governments [13]. To counteract this risk, the manufacture and sale of tobacco products had to be monitored. An EU directive with that aim was issued in 2014 [14]. The WHO Protocol to Eliminate Illicit Trade in Tobacco Products is an international treaty with the objective of eliminating all forms of illicit trade in tobacco products [15]. The treaty entered into force in 2018.

Examples of illicit tobacco product volumes in Nordic countries [12]:

- in the year 2017: 3 000 000 cigarettes in Finland
- in the year 2015: 29 014 910 cigarettes in Sweden
- in the year 2016: 5 268 666 pieces of processed tobacco in Denmark
- in the year 2017: 6 638 514 cigarettes in Norway

Encrypted tax stamps and/or other pack markings that are difficult to counterfeit are an integral component of more comprehensive tracking-and-tracing systems that track tobacco products through each stage of the supply chain, from production to retail sale, and they can also be used to trace products back through the supply chain in order to identify all those involved in production, distribution and sale [16].

There are also other common arguments [16,17,18]:

- **Higher tobacco taxes lead to a fall in tax revenue**: A recent review demonstrated that this is not the case, showing an increase in tax revenues in the short to medium term, while
below-inflation tax increases led to a fall in tax revenue in real terms.

- **Higher taxes will cost jobs:** While the significant decline in tobacco use that results from higher tobacco taxes does lead to reductions in employment, these losses are typically more than offset by increased economic activity and employment in other sectors.

**Conclusion**

Raising taxes on tobacco products consistently demonstrated reductions in smoking behaviour. Price increases appear to be most effective among young adults and persons of low socioeconomic status. Overall the evidence indicates that increasing the price of tobacco products is a very important intervention for tobacco control [5, 6, 7, 8].

**Recommendations**

Because raising tobacco taxes is the most effective and cost-effective strategy for reducing tobacco use, the following are recommended:

- increase taxes on all tobacco products
- implement the WHO Protocol to Eliminate Illicit Trade in Tobacco Products; the protocol has been signed by Denmark, Finland, Norway and Sweden and has formally been confirmed by the European Union and Norway [15]
- implement the WHO Framework Convention on Tobacco Control; the framework convention has been signed by all Nordic countries [19]
References


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Where:


