Snus in Sweden

“No proof of harm” does not mean “Proof of no harm”

This is a long established truth in epidemiology and Public Health science that few disagree with

However

Is there a point when a summation of time, facts, and kept records, in combination with producible statistics, actually does establish that a certain instance of “no proof of harm” does indeed become:

“No proof of harm will under certain circumstances constitute proof of no, or extremely low, harm”

Discussion paper and points
Northern Cyprus May 12th 2015 (Updated November 2017)

Atakan Befrits

Introduction:

The information and translations in this discussion paper are for the purposes of giving the reader an accurate account of what is and is not known about snus in Sweden. Snus in Sweden has a market share of roughly 50% of all tobacco consumed. The level was closer to 90% market share at the start of the 20th century and dropped to under 20% during the period of sharp rise in cigarette smoking. Beginning from the 1970’s there has again been a sharp increase in snus use and this has coincided with the trend toward the lowest smoking rates in the western world. At no point in the last century has snus use ever been below 10% of the adult male population in Sweden.

Sweden is internationally recognized as a leader in Public Health work and also for excellent records keeping. This allows for high quality statistical modelling and epidemiological study of phenomena that impact individual and public health. This has been true since well before 1900, in effect more than 100 years.

Tobacco and Nicotine use is one of the most intensely studied harmful human habits for well over 50 years, also in Sweden. It is unquestionable that smoking tobacco is very detrimental to health for all smokers and bystanders, and given the current lifespan in Sweden in 50% of smokers cases also ultimately fatal.

This paper posits that IF snus use causes measurable and discernible serious adverse health effects in human beings, then due to the weight of sheer numbers and the sex difference in usage >90 men <10 women in Sweden, this negates any and all possibility of these effects going unnoticed and unrecorded for over a century. Yet, this is the case.
This paper also posits that if the above posit is true, then the Kingdom of Sweden is acting in a very irresponsible and detrimental way in terms of work to promote world Public Health through combatting, and lessening the effects of tobacco related NCD’s.

Please find below a translation of a Government order and decree from 2013. It is in part a result of several THR experts writing an open letter to then Minister of Health and Welfare in Sweden, Mrs. Maria Larsson, pointing out Sweden’s unique situation and responsibility in regards to THR (Tobacco Harm Reduction). (Copy of original included as per proof only).

Sweden has long argued and taxed “snus”, the Swedish version of smokeless tobacco, as a serious Public Health problem. The open letter, and subsequent Government order, for a total tobacco investigation, signals a genuine interest from the stakeholders to get a correct, balanced and unbiased calculation based in medical evidence also on “snus” as an 50% part of tobacco use in Sweden. The order marks the first ever instance of the Swedish political leadership demanding facts on “snus”, not merely asking for an opinion from the medical community.

As you will plainly see from the highlights on pages 3-4, there is absolutely no misunderstanding that the Government is asking for facts and numbers on ill-health and mortality also on snus and not only on cigarettes.

On pages 7-8 in this paper please find “snus” use and population numbers for Sweden dating from 1910-2010. Swedish records are excellent in this respect that we can with certainty say how much snus or how many cigarettes were sold in any given year.

On page 8 please also find a summary of the registry datapoints on “snus” in the subsequent report, and a summary of what these datapoints do and do not support in terms of serious adverse health effects from the use of “snus”.

Finally please find some copied parts, excerpts, translations and explanations from the actual report as presented to the Prime Ministry some 24 hours before deadline. Unfortunately it seems there was no interest from Swedish Public Health institutions to communicate the findings, or lack thereof, in the report to the international community so it was never published in English (Sic.).

Please also note that the responsible agencies had the knowledge that not one single datapoint on adverse health effects from snus could be presented, already 5 months prior to the publication of the report. I cannot find any signs or documentation that the authors responsible for the production of the report made any attempts to pre-notify the Government of this rather conspicuous lack of data and ask for information on how to deal with this discrepancy.

The lack of data on snus ill-health is discussed in a section of the report together with a discussion regarding lack of data on second hand smoke, inferring that the two are somehow similar from a statistical or epidemiological standpoint. Nothing could be further from the truth since second hand smoke ill-health by definition is almost impossible to accurately measure by any standards.

“Snus” ill health on the other hand ought to be incredibly easy to measure since it would be exclusive to males who are “snus” users or possibly found through significantly elevated levels of specific ill-health, found exclusively in male “snus” users.
There seems to have been no such findings of ill health demonstrable for inclusion in the report, the report fails to mention or highlight this in any way, quite the contrary.

The report instead seems to “cavalierly” imply all sorts of untold harms and ill-health at first scrutiny from snus use, without absolutely not one iota of health outcomes evidence to back these statements up with.

**Translation**

**Government Commission on Tobacco related ill-health and mortality**

**The Government hereby orders:**

The Prime Ministers Office charges the National Board of Health and Welfare (NBHW) to develop a method to calculate current tobacco related ill-health and mortality and also future tobacco related ill-health and mortality among tobacco users based on today’s exposure to tobacco.

The work is to be conducted in cooperation with the Public Health Agency of Sweden and the Karolinska Institute.

For the production of this assignment the NBHW may use 600 000 Swedish krona. The expense should be assigned to .......Not important ..............

The economic reporting on this assignment shall be in the hands of Kammarkollegiet no later than February 28th 2014. Any unused funds should be returned to Kammarkollegiet also at this time.

The results/report of this assignment should be in the hands of the Prime Ministry’s Offices (Ministry of Health and Social Affairs) no later than February 28th 2014. The report shall include the reference number of this decision.

**The Assignment**

The Prime Ministry on 22 december 2010 approved the proposed: A combined strategy for policy’s regarding alcohol, drugs, doping and tobacco // irrelevant bla bla bla/>. To acquire a broad and comprehensive picture of the development of tobacco related disease it is suggested that The NBHW investigates the possibilities for a Tobacco Index, to mirror actual levels and provide a good picture of the development of Tobacco related ill-health and mortality.

**Details on the Assignment**

The NBHW shall produce a method to gauge ill-health and mortality resulting from tobacco in tobacco users in different age groups and of all sexes and also predictions on future tobacco related ill-health and mortality among tobacco users based on todays exposure to tobacco.

*As part of the assignment is also included to from available scientific knowledge in the field take an inventory of what diagnoses are related to ill-health and mortality from tobacco*
The NBHW shall also take into account the work with microsimulation models developed within the Prime Ministry’s offices that allow for simulation of new policy program points regarding tobacco use and tobacco prevention in the aim of analysing the effects on health and welfare systems from tobacco prevention policy. The NBHW shall also take into consideration the work carried out by the Karolinska Institute to map the total levels ill-health burden from alcohol, drugs and tobacco in Sweden.

The object of the assignment is to produce a method by which future periodic review can be undertaken to calculate the level of tobacco related ill-health and mortality among tobacco users, as well as calculating the current level.

On behalf of the Prime Ministers Office

Maria Larsson

(Minister of Health and Welfare)

Copies to:

Council of Ministers
Prime Ministry’s Offices clerical
Social and Welfare political Office
Kammarkollegiet (Prime Ministry’s Comptroller and Auditing Office)
The Agency for Public Health
Karolinska Institute
Members of the Advisory Committee for alcohol, drugs, doping and tobacco
Members of the Project group for follow up on the ADDT strategy
Members of the Reference group included in the follow up work and evaluation of the ADDT strategy
Uppdrag om tobaksrelaterad sjuklighet och dödlighet

Regeringens beslut

Socialstyrelsen ges i uppdrag att ta fram en metod för att skatta nuvarande tobaksrelaterad sjuklighet och dödlighet bland tobaksbrukare och den framtida tobaksrelaterade sjukligheten och dödligheten bland tobaksbrukare baserad på dagens exponering för tobak.

Genomförandet av uppdraget ska ske i samråd med Statens folkhälsoinstitut och Karolinska Institutet.


En ekonomisk redovisning av använda medel ska lämnas till Kammarkollegiet senast den 28 februari 2014. Vid samma tidpunkt ska medel som inte har förbrukats återbetalas till Kammarkollegiet.

Redovisning av arbetet ska vara Regeringssansliet (Socialdepartementet) tillhanda senast den 28 februari 2014. Redovisningen ska hänvisa till det diarienummer som detta beslut har.

Ärendet


Närmare om uppdraget

Socialstyrelsen ska ta fram en metod för att skatta sjukligheten och dödligheten till följd av tobak för tobaksbrukare i olika åldersgrupper och med avseende på kön och den framtidiga tobaksrelaterade sjukligheten och dödligheten bland tobaksbrukare baserad på dagens exponering för tobak.

I uppdraget ingår att utifrån befintlig vetenskaplig kunskap på området genomföra en aktuell inventering av vilka diagnoser som utgör sjuklighet och dödighet föranledd av tobak bland tobaksbrukare och bedöma i viken utsträckning tobaken bidrar till den totala sjukligheten och dödligheten i var och en av dessa diagnoser samt den totala sjukligheten och dödligheten föranledd av tobak bland tobaksbrukare.

Socialstyrelsen ska ta hänsyn till arbetet med den mikrosimuleringsmodell som utvecklats inom Regeringskansliet, som möjliggör simulering av nya programdelar som avser tobaksanvändning och prevention i syfte att kunna göra en analys av effekterna på hälsa och välfärdsystem av tobakspreventiva åtgärder. Socialstyrelsen ska också beakta Karolinska Institutets pågående kartläggnings av den samlade sjukdomsbördan avseende alkohol, narkotika och tobak i Sverige.

Avsikten är att ta fram en metod för att återkommande kunna bedöma den tobaksrelaterade sjukligheten och dödligheten bland tobaksbrukare, och för att ta fram aktuella uppgifter.

På regeringens vägnar

Maria Larsson

Ralf Löfstedt

Kopia till

Statsrådsberedningen
Regeringskansliets förvaltningsavdelning
Socialutskottet
Kammarkollegiet
Statens folkhälsoinstitut
Karolinska Institutet
Ledamöterna i ANDT-rådet
Ledamöterna i Projektgruppen som ingår i arbetet med uppföljning och utvärdering av ANDT-strategin (S 2011:E)
Ledamöterna i Referensgruppen som ingår i arbetet med uppföljning och utvärdering av ANDT-strategin
Snus use in Sweden in numbers

Current percentage of snus use/total tobacco use 49.5%

<table>
<thead>
<tr>
<th>Decade</th>
<th>Tons</th>
<th>Grams/person</th>
<th>Million users</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1910</td>
<td>6000</td>
<td>1,091</td>
<td>1</td>
<td>18 (99% male)</td>
</tr>
<tr>
<td>1920</td>
<td>7000</td>
<td>1,191</td>
<td>1.1</td>
<td>19 (99% male)</td>
</tr>
<tr>
<td>1930</td>
<td>4900</td>
<td>799</td>
<td>0.9</td>
<td>15 (99% male)</td>
</tr>
<tr>
<td>1940</td>
<td>4000</td>
<td>629</td>
<td>0.7</td>
<td>11 (99% male)</td>
</tr>
<tr>
<td>1950</td>
<td>3000</td>
<td>401</td>
<td>0.6</td>
<td>8.5 (99% male)</td>
</tr>
<tr>
<td>1960</td>
<td>2600</td>
<td>347</td>
<td>0.5</td>
<td>6.7 (99% male)</td>
</tr>
<tr>
<td>1970</td>
<td>2500</td>
<td>310</td>
<td>0.5</td>
<td>6.25 (99% male)</td>
</tr>
<tr>
<td>1980</td>
<td>3500</td>
<td>421</td>
<td>0.6</td>
<td>7.2 (95% male)</td>
</tr>
<tr>
<td>1990</td>
<td>4500</td>
<td>525</td>
<td>0.8</td>
<td>9.3 (90% male)</td>
</tr>
<tr>
<td>2000</td>
<td>5500</td>
<td>619</td>
<td>0.9</td>
<td>10.1 (90% male)</td>
</tr>
<tr>
<td>2010</td>
<td>7000</td>
<td>800</td>
<td>1.1</td>
<td>11.8 (90% male)</td>
</tr>
<tr>
<td>2050</td>
<td>14000?</td>
<td>2,0?</td>
<td>24 (50% male)?</td>
<td></td>
</tr>
</tbody>
</table>

Explanations:
At no point during the period from 1910-2010 has consistent snus use in the male Swedish population ever been lower than 12.4%.

In 2010 as in 1910 consistent daily snus use in the male population is over 20%.

The lowest incidence of snus use is during the same period as the very rapid increase in cigarette smoking during the mid 1900's, with well known health effects.

The increase in snus use after 1970 is matched to a large extent by lower smoking.

Sweden has a culture of exclusive snus use without any smoking, this leads to 4 separate questions: 1. How harmful is exclusive snus use? 2. Does the data support the Gateway theory or the opposite? 3. What is the likelihood given current tobacco marketing legislation that a population with no prior snus use history will develop a large enough portion of exclusive snus use uptake, to warrant concern? 4. If so, then what would the harm/benefit ratio be in a worst-case scenario?
Based on the above snus using populations, what were the actual harm levels from snus use found in Sweden, covering over a century of collected data?

PLEASE SEE PAGE 9 AND ON FOR DOCUMENTATION

- This does not support that snus/THR is harmless
- This does not support that snus/THR should ever be used by non users of tobacco/nicotine
- This does not support unregulated marketing or the sales of THR products to persons under 18 years
- This does support that THR products has been successfully used in very large numbers for no longer smoking and as standalone products without measurable population level harm
- This does support that large non smoking but tobacco using populations do exist without causing measurable population level harm
- This does support that instead of banning smokeless products, a product quality control and improvement strategy, is a better argument for Asia, for example
- This does support that higher quit rates are possible through attractive and commercially available THR products, and will have few, if any, serious downsides
- This does support that blanket-banning smokeless/THR product may increase total numbers of individuals eventually successfully becoming tobacco-free, but at a prohibitively high cost in population level health terms, as well as individual ill-health and suffering and productivity losses and for future smoking levels
- This does support the idea that active support and incentivization (which has never been the case in Sweden) and promotion for, switching from cigarettes to THR products, may have vastly better results, even than those seen in Sweden, with a documented minute risk of unwanted or negative consequences
- This does support the potential benefits of truthfully communicating the difference in relative risks and the risk continuum from use of different types of tobacco/nicotine products to smokers
- This does support that long term use of THR products differs little, if any difference at all, from long term use of NRT products that are licensed also for long term use and acknowledged to have negligible, if any, serious adverse side effects.
- This does support that THR product’s higher acceptance to smokers is a vital improvement over pharmaceutical alternatives, and THR products should be endorsed and supported to all smokers who have tried to quit and failed.
The “misnamed” report

Please find below the title and first page of the report that resulted from the Government order translated on pages 3-4 and true copy of the original on pages 5-6.

The report is named:

Registry Data on ill-health from tobacco smoking

It seems pretty clear from the first impression that any serious effort at properly explaining the lack of data on snus or drawing any conclusions from that are not going to be present in the report.

A more disturbing issue is that without prior knowledge that data on snus was specifically asked for, most readers of this report would never imagine that the intention was for the report was also to provide best available knowledge on ill-health and mortality from “snus” use in Sweden. This rather glaring and important omission, as “snus” represents very close to 50% of tobacco use in Sweden, would go completely unnoticed by the uninformed reader. It would also give the reader a false sense of security that the “knowledge” about snus ill-health is verified and can be found elsewhere. This simply is not true and this truth is also hidden away in the formulations of the report.

In light of the wording in the Government order to the National Board of Health and Welfare and the above cited resulting report; Ill health from “snus” use must then be pretty much 0 according to the Swedish records? Why is this not stated?

In all likelihood the ill-health from “snus” use is greater than 0, as with almost anything else one can come to think of, but so close to 0 as to never have warranted closer scrutiny. Almost all forms of serious ill-health that are exclusive to the female sex, even when very very rare, have been documented and studied and can be found in Swedish health records and statistics. The same is true for exclusively male ill-health.
Looking at the last century it is fairly safe to say that any serious adverse health effects from snus use would have been exclusively male and would certainly have been noticed and recorded.

Yet there is absolutely no trace in any records or databases.

When looking at this page from the report the Swedish Public Health authorities can with a relatively high level of confidence say that 100,000 new instances of smoking related disease occur every year and almost 12,000 fatalities from smoking.

These calculations are of course based on actual diagnostics statistics and approximations of indirect effects using models based on best current knowledge of smoking related diseases.

Is it likely, or even possible, that given the marching orders from the government that the report should not at least include some approximation on “snus” related ill-health if there was any discernible such?

Between 100-200 or 500-1000 or 1000-2000 fatalities per year? Something? Anything?

Not one single datapoint to be found in the entire country after 100 years?
"Indirect effects of smoking and other tobacco exposure

There is research showing that not only does smoking have direct effects on the smoker but also on the smoker's environment, for example passive smoking. In Sweden a number of regulations have reduced the exposure to second hand smoke in society.

Smoking is the most frequent cause of tobacco exposure in Sweden. After smoking comes “snus” use, which has been verified to have effects on cancer of the pancreas and the risk of premature labor and stillbirth. "Snus" use has over the last years increased and is now very prevalent in both sexes but still predominantly among men. Since it has been shown that snus use has negative health consequences (very much lower than those from smoking) the use of “snus” should be included in the future measurement of tobacco related ill-health. Both epidemiological studies of snus related health consequences, as well as the monitoring of actual use, is too sporadic and/or of too recent date to be included in this analysis.

The direct effects of smoking on the smoker completely dominate the ill-health from tobacco. The extent to which the use of “snus” has had an impact on smoking and total tobacco consumption has been a topic of discussion. The effects of snus as measured by ULF/SILC have impacted the smoking prevalence. Except for the impact that the politics on snus may have on the exposure to smoking, these effects of snus on smoking are of marginal importance. Therefore second hand smoke and the use of "snus" are not included in the calculations made on the ill-health of tobacco."
Discussion points on the report’s conclusions about snus on page 19:

First of all it is interesting to again note that not one single datapoint is included, or even an estimation attempted.

Secondly, except for claims of increased risk for cancer of the pancreas among snus users, the report does not mention any other adverse health effects except for in pregnant women.

Pregnant women is a distinct group for which absolute abstinence from all forms of tobacco and nicotine and most other substances is already a rule, and therefore the inclusion fills no function in this context other than overinflating the sense of danger.

This is highly questionable and frankly suspect and does not belong in a scientific report.

A marked increase in incidence of pancreatic cancer in snus users would be a warranted concern for inclusion in the report. However the age standardized rates in Sweden differs between the sexes by less than 1 per 100,000 (Men W=7) for both new diagnoses and mortality rate per year from pancreatic cancer. Sweden thus has a max total of 50 cases of pancreatic cancer per year from total snus use (35 cases all cause cancer from snus according to Wickholm 2005), if the entire W rate difference between men and women were to be caused by snus use.

Sweden has one of the lowest levels on pancreatic cancer in Europe. Denmark has 8, Finland has 9, Norway has 7 and only Iceland has less with 6 and the UK has W=10 among men. None of these countries, except Norway, have snus. It is clear that the numbers simply do not match or support the statements made in the report.

Translation of section on page 30 of the report:

“The current trend in the population to switch from smoking to using “snus” will reduce the toll of tobacco related ill-health but not eliminate it entirely. There is some documented evidence of harms from snus use, for example increase risk for pancreatic cancer and adverse pregnancy outcomes. For snus related ill-health with relatively short latency, exposure information collected from 2006 and on through ULF/SILC will soon be ready for analysis. It will then be possible to supplement the smoking ill-health model with approximations on the ill-health from snus.”
Take home messages:

- Harms from snus use are so low as to make them not suitable for measurement and not warranting any attention in over a century
- The trend is clear that “snus” use is already replacing smoking, despite policies and Public Health working against it
- There is little in vitro evidence and 0 in vivo evidence for any serious adverse health effects emanating from this trend in Sweden
- With over 100 continuous years of +10% prevalence in adult males in Sweden this is more than sufficient “proof of no, or very low, harm”
- Swedish Public Health agencies presented the Government with a “fait accompli” report covering only 50% of the assignment without prior notification despite knowing this for over 5 months
- Sweden, Norway and Iceland are all excellent examples of high quality smokeless products replacing a large portion of smoking and smoking initiation.
- Japan and South Korea are excellent examples that aware smoking consumers will quickly shift to reduced risk products and iQOS is the product with the best data and performance to date.
- The UK is an excellent example of how a consumer driven transition to reduced risk products (vaping) can be very fast and effective. Transition can be cost-effectively augmented simply from Public Health rewording its messaging.

There is no longer anything anecdotal about harm reduction in tobacco and it is a gross injustice to users, loved ones and even non-users not to be globally forthright about THR at every level and in every forum.

Thank you!
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