Policlinique Médicale Universitaire CH-Lausanne

2nd European Harm Reduction Conference session

Tobacco and Harm Reduction

Prof. Jacques Cornuz, Policlinique Médicale Universitaire, Lausanne

Background

- The majority of smokers want to stop - once in the future
- The (vast) majority want to reduce smoking
  - either because they did not succeed when trying to quit
  - or to smoke less
- Motivation: health benefits

Will reduction improve health?

- Smokers unconsciously compensate for reductions by smoking more intensely (Hatsukami et al., 2006),
- Small reductions in smoking may not result in any meaningful health gains (Joseph et al., 2008; Tverdal & Bjartveit, 2006).
- Smoking even a few cigarettes per day can be associated with significant risk (Bjartveit & Tverdal, 2005).
- Reduction improves known risk factors (e.g. inflammatory biomarkers); however, whether these are adequate markers for disease risk is unclear (WHO Study group, 2007).

How to proceed?

- Very difficult to reduce without any help
- The assisted smoking reduction with either Nicotine replacement therapies (NRT) or bupropion has a marginal effect
- Assisted reduction do not reduce later motivation to stop (no autogoal!)
- Assisted reduction may even increase willingness to stop.
- When taking NRT for reduction, some smokers even quit!

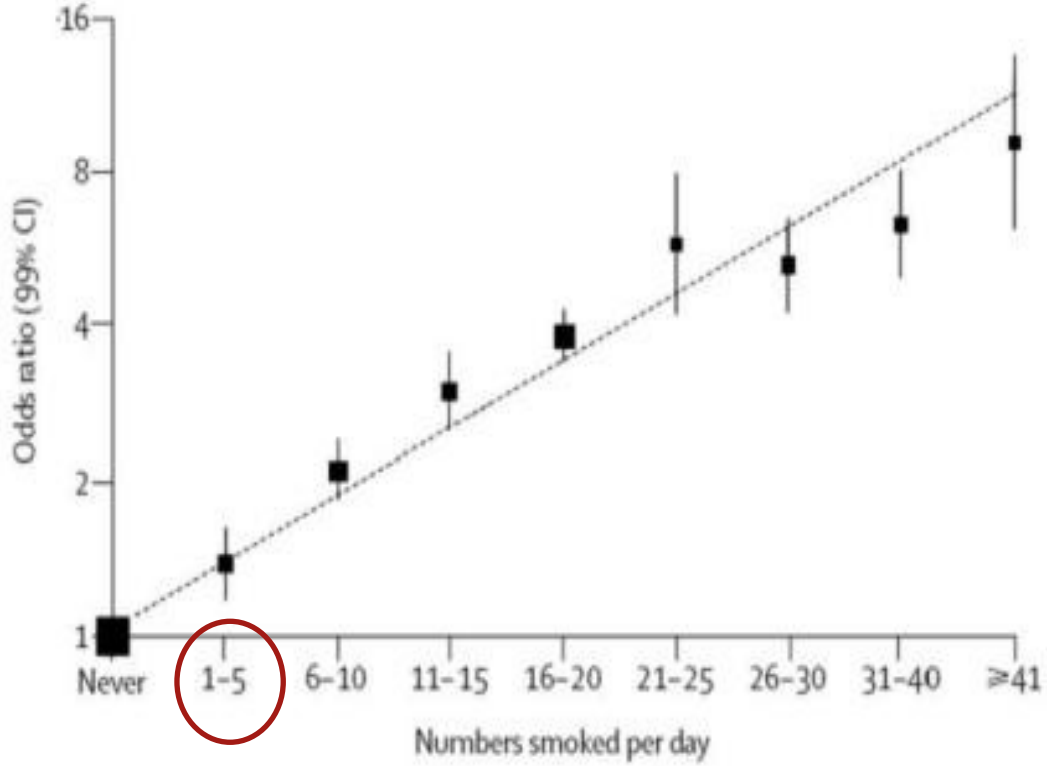
Some major questions?

- Risk reduction vs consumption reduction?
- How much ? From one pack a day to 10 or 5 cigarettes/day ?
- How long time before getting benefit? 1 year? 10 years?
- No threshold with a null risk!

Harm reduction

- To be effective, a reduction should
  - be important
  - sustain for a very long time
  - avoid any oversmoking behavior
  - avoid reducing further quit attempts
- Harm due to smoking: depends more on smoking duration
- Even light smokers have increased risk

Risk of cardiac diseases associated with light smoking



	Never	1–5	6–10	11–15	16–20	21–25	26–30	31–40	≥41
Number of controls	7489	727	1031	446	1058	96	230	168	56
Number of cases	4223	469	1021	623	1832	254	538	459	218
Odds ratio	1	1·38	2·10	2·99	3·83	5·80	5·26	6·34	9·16

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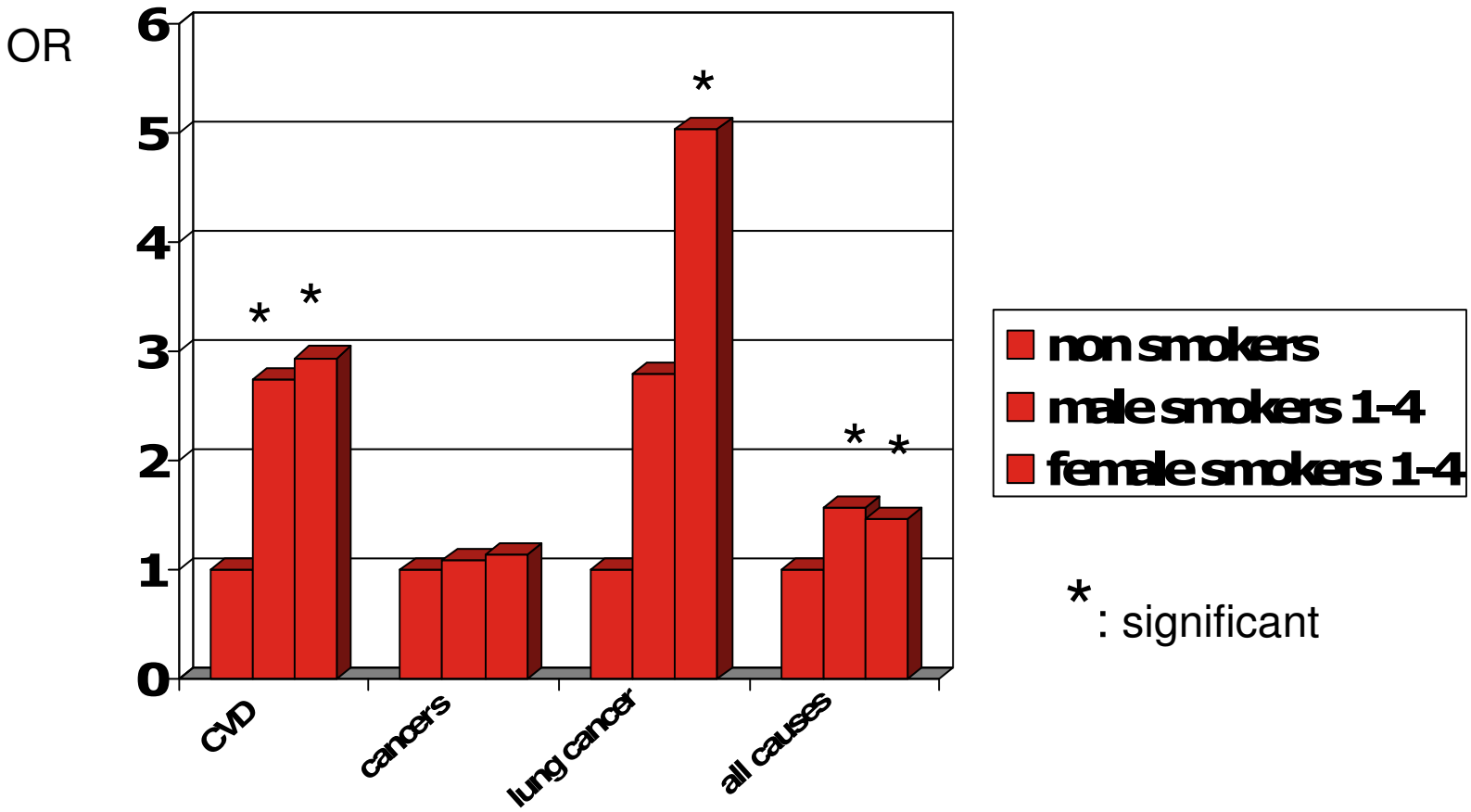
Yusuf, Lancet 2004

Mortality associated with 1- 4 cigarettes/day
survey of 23521 men and 19201 women followed over 30 years in Norway)



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Bjartveit K, Tobacco Control 2005;14:315-20

E-cig : new hope ?

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Swiss-vap Study

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Manuscript in preparation

Context

- Many questions from patients and the media re. nicotine e-cig.
- Little scientific data about safety and efficacy
- Different opinions among Swiss experts
- No specific regulation in Switzerland
- Expectations from local authorities, doctors, health care professionals, …
- Nicotine use does not produce health damage (no tar, co, or proteolytic enzyms)

-> Need for an actual position of tobacco experts in Switzerland

Objective of Swiss-vap study

- To propose recommendations for health authorities concerning:
  - Regulation
  - Sale
  - Use
- To get the general opinion of experts about e-cigs.

Method (1)

- Principle of the Delphi method:
  - 1st Round: Questionnaire is sent to an experts' panel
  - 2nd Round: New questionnaire is sent to the experts, with the results of the first Round, allowing them to modify their position depending of the results of the first round.
  - This process is repeated to optimize the consensus possibilities

Method (2)

- In this Delphi process:
  - Online questionnaire
  - Experts rated the recommendations, weather they agree or disagree, on scale from 1-10, or
  - Ranking some propositions, from the most appropriate to the least appropriate

Method (3)

- Recommendations with high level of consensus were not rated again in following questionnaires.
- Recommendations with low levels of consensus were formulated again, with or without modification, depending on:
  - Extent of disagreement between experts
  - Comments and suggestions from experts
- 4 rounds needed for the present study

Online Questionnaire

[SURVEY PREVIEW MODE] Swiss-Vap Study, Round 1 Survey - Windows Internet Explorer

https://www.surveymonkey.com/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COLLECTION&sm=rumgWGSJh1djDVTDav%2f23trh0nUkKq%2bqZXnYVUneNIA%3d

Identifié par VeriSign

Swiss-Vap Study, Round 1

Section 1: Regulation

44%

Please rate each recommendation on a scale of 1 to 10, where 1 is strongly disagree and 10 is strongly agree.

1.1. Nicotine-containing e-cigs should be sold in Switzerland:

Background: According to the current Swiss legislation, only e-cigs without nicotine can be sold. For personnal use only, customers can buy e-liquid with nicotine abroad, with a maximum limit of 150ml.

1	2	3	4	5	6	7	8	9	10	No opinion
○	○	○	○	○	○	○	○	○	○	○

Comment

1.2. E-cigs should be considered as:

Background: The legal status of e-cigs would change the kind of control that would be required to assess the quality, efficacy and safety of the product before it could be sold. It will therefore influence the availability in the short/long-term of e-cigarettes.

	1	2	3	4	5	6	7	8	9	10	No opinion
Drug (medication)	○	○	○	○	○	○	○	○	○	○	○
A tobacco product	○	○	○	○	○	○	○	○	○	○	○
A consumer product	○	○	○	○	○	○	○	○	○	○	○
Other	○	○	○	○	○	○	○	○	○	○	○

Comment

1.3. If e-cigs are not classified as a drug (medication), specific regulation should be applied (e.g. quality control):

1	2	3	4	5	6	7	8	9	10	No opinion
○	○	○	○	○	○	○	○	○	○	○

Comment

Terminé

Internet | Mode protégé : désactivé

100%

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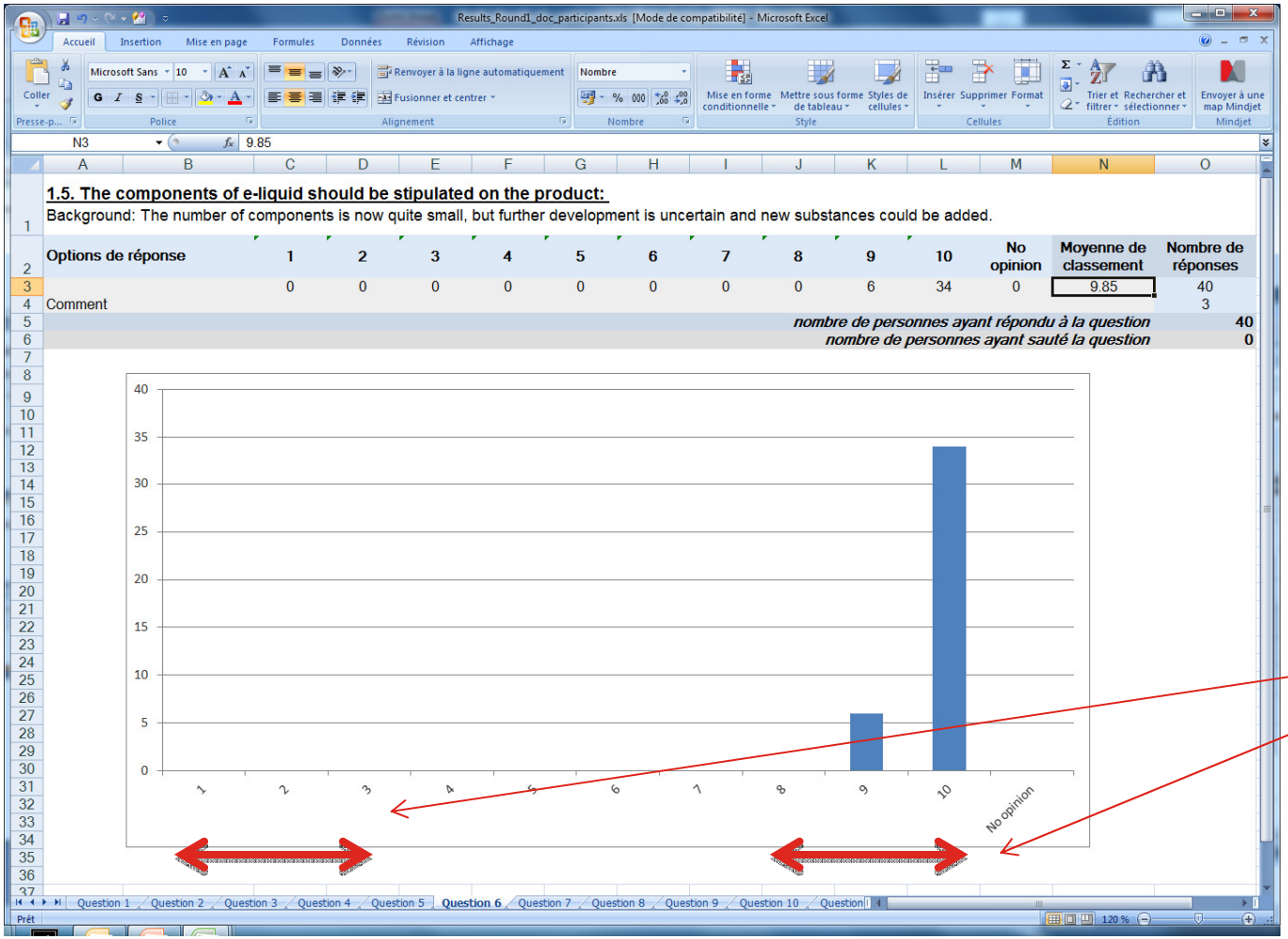
Definition of Consensus



If mean value is:
-Between 1-3
-Between 8-10

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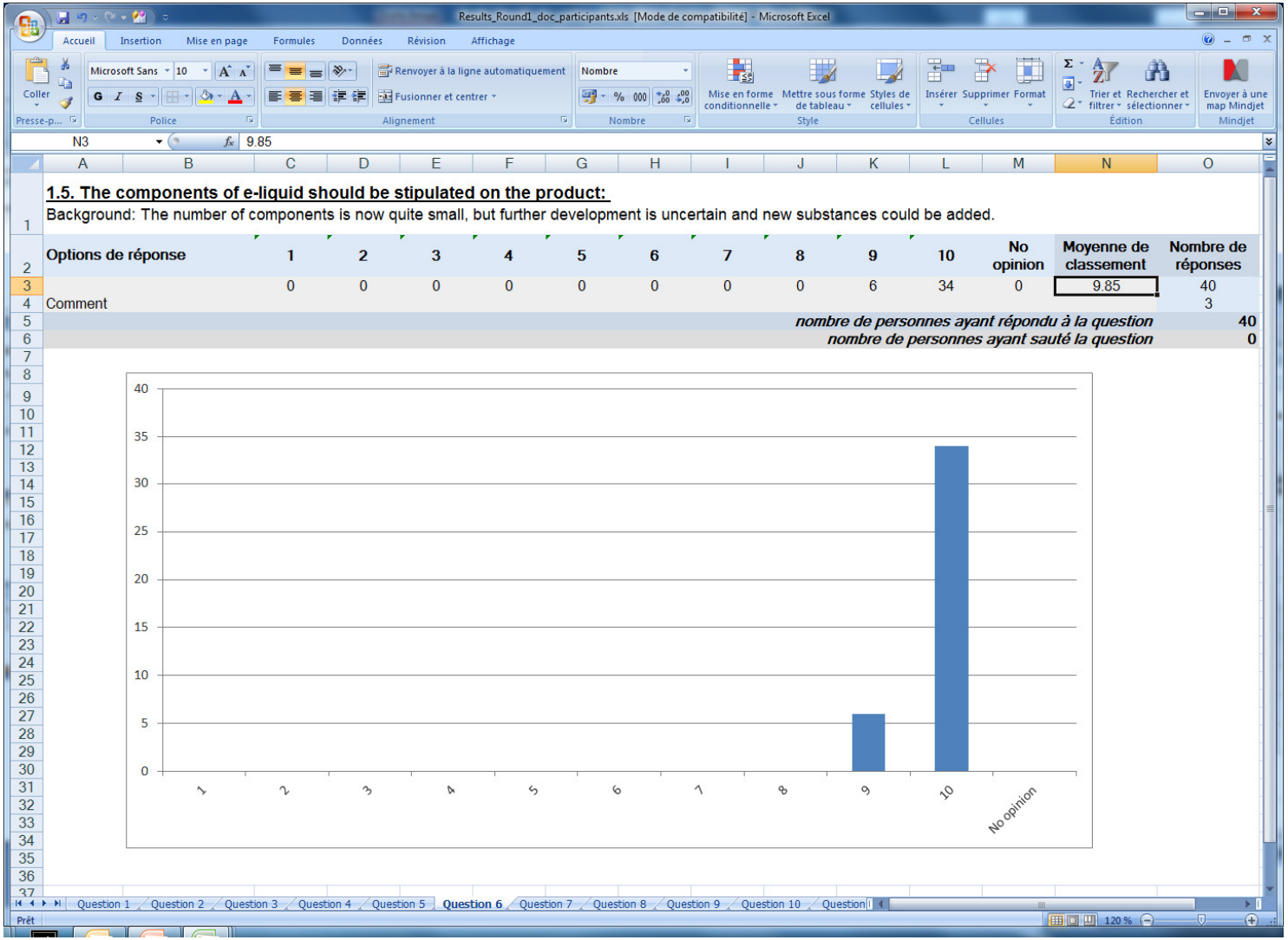
High level of agreement



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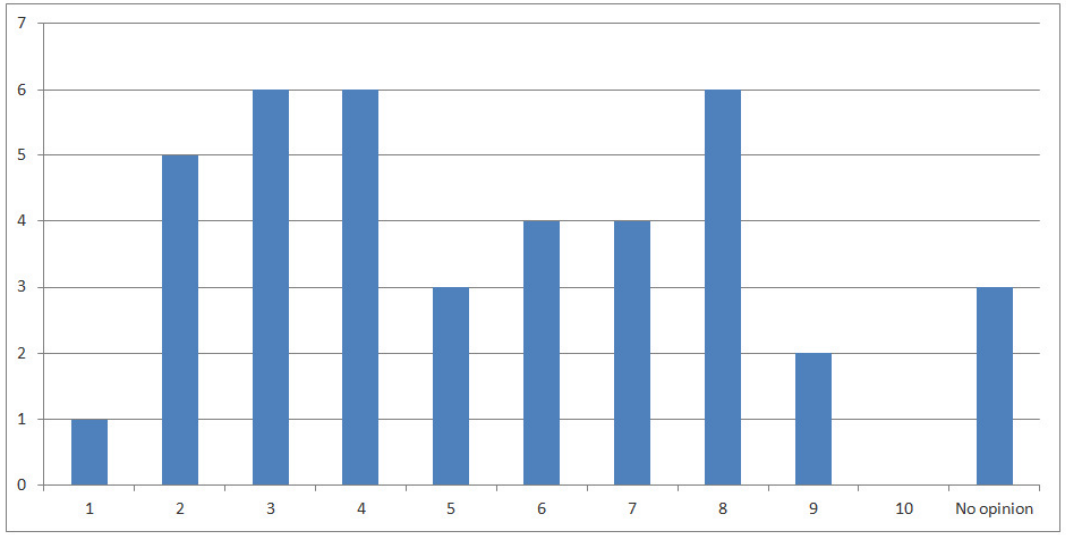
Low level of agreement

Results_Round1_doc_participants.xls [Mode de compatibilité] - Microsoft Excel

4.1. E-cigs are dangerous:

Options de réponse	1	2	3	4	5	6	7	8	9	10	No opinion	Moyenne de classement	Nombre de réponses
	1	5	6	6	3	4	4	6	2	0	3	5.03	40
Comment													18
nombre de personnes ayant répondu à la question													**40**
nombre de personnes ayant sauté la question													**0**



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Experts' participation

Inclusion criteria for invited experts:
-Trainer physicians of the program "Vivre sans tabac" (N=58)
-The physicians of the network "Hospital quit support" (N=8)
-Heads of the different public health services of the Swiss universities (N=5)
-Experts known for their implication in clinical or political tobacco prevention, as well as in public health programs (N=42)

Regulation

- Nicotine e-cigs should be sold in Switzerland with a specific regulation, not through the 2013 Swiss laws (Federal act on foodstuffs and utility articles).
- E-cigs should be considered as either:
  - A *drug* (medication), regulated by Swissmedic
  - *New category of product* containing nicotine (for example: included in the new law on tobacco products)
- E-cigs should not be labeled as :
  - A tobacco product (such as tobacco cigarettes, tobacco pipes, and tobacco cigars)
  - A consumer product, without changing the actual regulation

Regulation

- If e-cigs with nicotine were to be authorized in Switzerland, companies should:
  - Respect a list of authorized e-liquids components
  - Be on a list of accepted models with specific requirement
  - Respect an upper limit of nicotine concentration
- Advertisement should not be allowed:
  - In the media
  - Targeting minors
  - Targeting non-smokers

Regulation

- A warning should be stated on the product, especially concerning the addictive potential and the lack of evidence on the long term security of the product.
- The components of e-liquid should be stipulated on the product.
- A specific tax should be implemented on e-cigs.

Use

- The use of e-cigs should be forbidden in public places.
- Health authorities should advise never smokers not to use e-cigs (e.g. through a public campaign)
- Health authorities should not encourage smokers to shift to e-cigs to help them quit smoking as first line therapy.

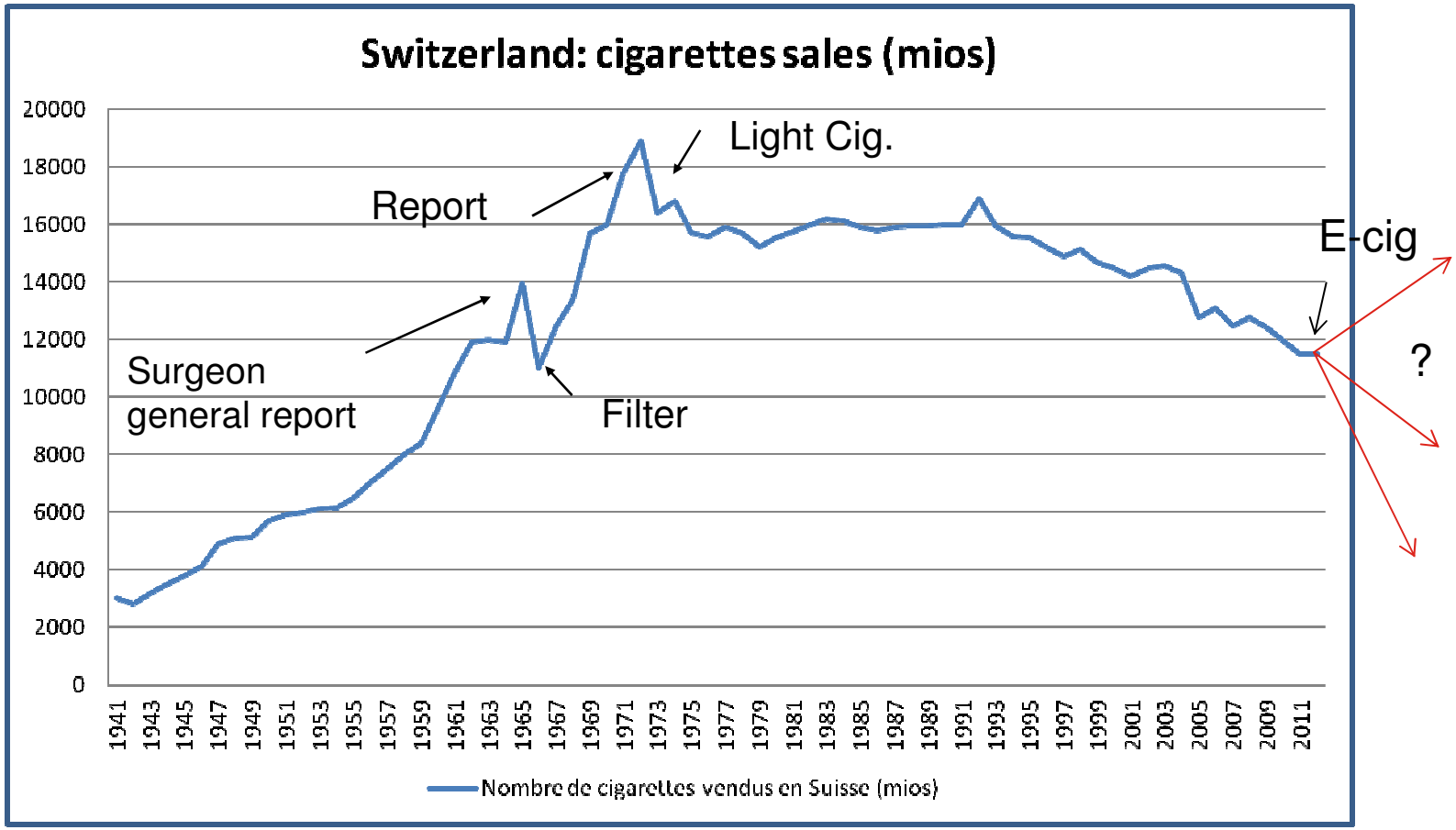
General opinion

- If e-cigs become a popular product, nicotine addiction should be seen as a medical issue and a public health issue.
- Research should assess:
  - Long-term inocuity
  - Efficacy as a quitting tool
  - Psychological and social effects
  - Dual consumption: e-cigs and tobacco products
- On the appraisal of the current data, e-cigs are not dangerous for the health of tobacco smokers

Implications

1) E-cigs with nicotine should be sold in Switzerland.
2) A specific regulation should be enacted, for example included in the new law on tobacco products.
3) Sale should be restricted to adults.
4) Quality standards, upper limit of nicotine concentration and a list of authorized components should be implemented.
5) A specific tax should apply, to finance research on the product in particular.
6) Advertisement should be restricted.
7) Use in public places should be forbidden, in order to diminish the risk of renormalization, to protect people from passive vaping and to avoid potential confusion with passive smoking

2013


Switzerland: cigarettes sales (mios)
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
1941
1943
1945
1947
1949
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2005
2007
2009
2011
Light Cig.
Report
E-cig
?
Surgeon
general report
Filter
Nombre de cigarettes vendus en Suisse (mios)

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An endgame for tobacco?

Kenneth E Warner

ABSTRACT
Since its origins in the 1960s, tobacco control has achieved remarkable success against the scourge of tobacco-produced disease and death. Yet tobacco use, especially cigarette smoking, remains the world's leading cause of preventable premature death and is likely to do so for decades to come. Evidence-based policies seem incapable of substantially hastening the demise of smoking. Slowness in the decline of smoking in developed nations, and increasing smoking in many low- and middle-income countries has sparked interest in novel, even radical 'endgame' strategies to eliminate the toll of tobacco. This paper identifies the principal endgame proposals and, with the other papers in this volume, has the goal of expanding and deepening the endgame conversation by engaging the broader tobacco control community. While we struggle today with often widely divergent perspectives and beliefs about what is possible and how it might be achieved, we all share the same vision of the final words to this story: 'The end'.

Since publication of the UK Royal College of Physicians' report on smoking in 1962,[1] and the US surgeon general's report in 1964,[2] progress against the scourge of tobacco-produced disease has been striking: smoking prevalence has declined by half or more in most developed nations. Indeed, when measured in terms of premature deaths averted,[3] tobacco control is arguably the developed world's single greatest public health success story of the past half century.

Still, tobacco use—and principally, cigarette smoking—remains the leading cause of preventable premature death and illness in all those countries, and it is increasingly achieving that dubious status within low-income and middle-income countries (LMICs). According to WHO, smoking killed 100 million people worldwide in the 20th century, and, with currently anticipated patterns of tobacco consumption, will claim *1 billion lives* in the present century, most in LMICs.[4] The great successes of many national anti-smoking campaigns notwithstanding, the pandemic persists. In many developed countries with the most robust tobacco control efforts, the decline in smoking prevalence has slowed to a trickle. Evidence-based policies seem incapable of substantially hastening the demise of smoking in these countries.[5] In LMICs, smoking is on the rise. The net effect is that, barring more—and more effective—tobacco control, global smoking prevalence will remain between a fifth and a fourth of all adults for at least the next 20 years.[6] Unless something dramatically different occurs, smoking will continue to be Public Health Enemy #1 for decades to come, killing millions of people every single year.

This dire prognosis has led several visionaries to propose endgame strategies, novel, even radical approaches to tobacco control that, their proponents believe, hold the potential of dealing smoking a knock-out punch. While these endgame strategies vary widely in methods and aspirations, they share two underlying beliefs: (1) that the status quo is unacceptable and (2) that reducing smoking substantially will require something new, bold and fundamentally different from the tried-and-true. The origins of these proposals lie in a provocative article published in 1994[7] in which Benowitz and Henningfield proposed gradually reducing the nicotine in cigarettes to non-addicting levels. Nearly a decade later, Borland advocated a Regulated Market Model for tobacco that would end direct-to-consumer marketing through the creation of a not-for-profit distribution agency with a harm reduction mandate.[8] A subsequent proposal by Callard and colleagues also called for the removal of the profit incentive by transferring the tobacco market to a non-profit entity.[9] Only in the past 3 years, however, has the explicit notion of seeking an endgame for cigarette smoking found its way into the scholarly literature.[10] Ideas range from a sinking lid on supply approach[11] to prohibiting tobacco consumption by people born in 2000 or later[12] to outright abolition of smoking.[13 14]

What is needed now is to familiarise the broader tobacco control community with the concept of an endgame and proposals to achieve it—that is the principal purpose of this special supplement—and then to evaluate what might be achieved by the various proposals. The latter requires contemplation of each strategy's potential outcomes, good and undesirable, and the political, legal, ethical, economic, regulatory and social barriers to realising the strategy's implementation. Finally, the very idea of what constitutes the end of the endgame needs to be addressed. Strikingly, to date, there has never been a serious discussion within the tobacco control community about what would constitute a final victory in tobacco control. Would it be a reduction in smoking-produced deaths to, say, 10% of current levels? Or 5%? Would it, rather, entail reducing cigarette smoking prevalence to 10% or 5%? Would it require the end of all smoking? Would victory demand the end of *all* forms of tobacco use? Would it, rather, envision the population's being nicotine-free? Or would the end of the endgame be the attainment of a more modest tobacco harm minimisation objective?[15]

The essence of the endgame requires thinking outside the box. This invites contemplation of a heresy: Is it possible—is it conceivably desirable—to envision a role for industry in striving for the endgame? Philip Morris International has announced its intention to begin selling what sounds like a pulmonary nicotine inhaler in various markets in the next few years.[16] A true pulmonary nicotine inhaler would be the first of its kind, a highly addictive product that might therefore serve as a satisfactory substitute for cigarettes for a subset of cigarette smokers. (Neither the pharmaceutical inhaler nor current e-cigarettes appear to deliver significant amounts of nicotine to the lung. Rather, their nicotine is absorbed through the oral mucosa, much like nicotine gum or lozenge.[17 18]) Although nicotine is not risk-free, a nicotine only product would be dramatically less dangerous than combusted tobacco. Could a true pulmonary inhaler hasten the demise of the cigarette? Could the profit motive contribute to movement toward the end of the horrendous death toll associated with combusted tobacco? A profitable substitute for the cigarette—one that could be taxed, thereby easing governments' revenue concerns—would confront far fewer political barriers than would adoption of any of the 'mainstream' endgame policies.

None of the principal endgame strategies described in this volume involves cooperation with the industry, however. To the contrary, they all directly and substantially threaten the industry's economic

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Conclusion

- The (vast) majority want to reduce smoking
- Motivation: health benefits
- Nicotine e-cigarette might be THE solution
- Important to change the paradigm
- Let the smokers (not the tobacco industry) and take the leadership with the support of any professional interested in reducing the harm due to tobacco
- Stay tuned!