

Deliverable 3.2. Final report and recommendations

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Objectives

The general objective of WP3 was to use the empirical evidence generated in this project to develop recommendations for the prevention of youth smoking.

The specific objectives were:

1. to map the evidence that tobacco control policy makers need with regards to the costs and impact of policies at local levels,
2. to compare this need to the available scientific evidence, and to map the need for further scientific evidence,
3. to translate the scientific evidence generated in this project into fine-grained recommendations for the prevention of youth smoking.

Work carried out

To meet Objective 1 of WP3, namely to map the evidence that tobacco control policy makers need, the WP leader:

- Performed a review of the scientific literature and key policy documents, and identified the information that tobacco control policy makers need in order to facilitate the implementation of the most effective and efficient tobacco control interventions to prevent tobacco initiation by adolescents. (Available in D3.1)

- On the basis of this review, as well as information supplied in the first series of consultation meetings (WP2), mapped the questions that tobacco control policy makers need to address regarding the implementation and impact of strategies to prevent youth smoking. (Available in D3.1)
- Subsequently, following a second series of consultations, the ‘mapping document’ was further elaborated so that it could serve as a guide for the information requirements of policy makers when considering new policy initiatives. (Available in D3.1)

To meet Objective 2, namely to map the scientific evidence needed to address the questions raised in the process of implementing Objective 3.1, the WP leader:

- Mapped, in the form of a literature review, the scientific evidence needed to address the requirements in Objective 1, and the type of scientific studies that were needed to produce this evidence in a format that can be used to guide policy development in the context of the prevailing tobacco control situation. (Available in D3.1)
- Using this literature review together with interviews with a wide range of stakeholders and policymakers (consultations, focus group interviews, individual interviews), WP3 assessed the limitations of existing scientific evidence, how policy makers make decisions in the absence of sufficient scientific evidence, and the consequences of this deficiency for policy decision-making. (Available in D3.1)
- Assessed how the available evidence can be presented in such a way as to support fine-grained lessons for the prevention of youth smoking (i.e. lessons that are sensitive to the national and local policy context, and to the gender and SES of the youth). (Available in D3.1)
- Made recommendations for the new scientific evidence to be generated in the SILNE-R project, both on impacts (WP4 and related WPs) and costs (WP10). This was done through input in the templates used for the consultation groups (WP2) and individual interviews. WP3 contributed to recommendations for new scientific evidence to be generated about students, staff and schools through input into templates for survey data collection (WP8 and WP10). In relation to costs, WP3 provided input into questionnaires for WP10. To a lesser extent, WP3 liaised with WPs 5, 6 and 7 regarding content to address

the new scientific evidence needed for policy makers to prevent youth smoking. (Available as project templates and questionnaires)

- Evaluated the transferability of policies already implemented in other jurisdictions that would allow policy makers to advance tobacco control through adopting policies already implemented, but with appropriate specific local modifications. (Available in D3.1; D3.2)

To meet Objective 3 of WP3, namely to develop evidence-based, tailored recommendations the WP leader:

- Developed a systematic approach of combining the questions and the empirical evidence to generate recommendations. This involved examining, summarising and synthesising the evidence from WPs 4, 5, 6, 7, 8, 9 and 10 and, based on the evidence generated by these WPs, identifying fine-grained evidence to support tobacco control policy decision makers in implementing strategies to prevent young people from smoking in local settings. Evidence from the WPs included policy recommendation briefs compiled specifically by other WPs for WP3; preliminary, interim, and final reports of other WPs; and papers prepared by other WPs for publication. (Available in D3.2 Appendices A, B, C, D, E, F, G, H, J, K, L)
- We used ‘models of change’ (*e.g.*, Advocacy Coalition Framework and Punctuated Equilibrium Framework theories) as developed in WP5 and WP4 to inform our recommendations. Specifically, these tools were used to illustrate the assumptions underpinning policy development and to suggest particular recommendations that were refined at national, local and school levels by reference to the evidence base resulting from data collected and analysed by WP5, WP6, WP7, WP8, WP9 and WP10. (Available in D3.2 Appendix A)
- Recommendations were developed that were tailored to specific European countries. Additionally, attention was paid to specific target groups (in terms of gender, SES, social network position, and school track. (Available in D3.2 Appendix)
- D2.1 sets out the requirements identified by the consultation groups. These were addressed in WP3's report with draft recommendations (D3.2 Appendix), and showed how the knowledge gleaned from the consultation groups at the

beginning of the project was assimilated into the process. It was not possible to satisfy all the questions identified in D2.1; some notable exceptions were e-cigarettes, plain packaging, and smoking in media (TV, radio, movies). These important issues did not emerge as problems in the focus groups or interviews but from the quantitative data in WP8, a scientific paper on aspects of e-cigarettes is being produced (WP3 and WP7). Plain packaging was only introduced into one of the countries (Ireland) and was too recent to be evaluated. Aspects of social media are covered in WP8.4 but information about TV, radio and film was not available from the countries in the project but need to be addressed in the future.

- Prepared a final report on the development of evidence-based, context sensitive recommendations. This report was sensitive to the needs of policy makers but also responsive to the plans for dissemination of WP2 in terms of format, content and prevailing attitudes to presentation of the target audience and needs of policy authorities. (Available in D3.2 Appendix)

Overview of results

a) Deliverable D3.1 (July 2016)

Deliverable D3.1 (July 2016) comprised four sections and an Appendix (focus group reports). *Section one* outlined existing evidence on strategies at national, regional, and school levels for the prevention of youth smoking. *Section two* presented an overview of the available literature on what evidence and information policy-makers need when making decisions related to tobacco control and other similar policies. *Sections three and four* discuss the ‘disconnect’ between available evidence and policy-makers’ needs, while presenting recommendations for the generation and dissemination of future evidence on the topic. These are summarised briefly below.

1. Existing evidence on strategies

A summary of results derived from the evidence identified and synthesised from an in-depth literature search on strategies at national, regional, and school levels for the prevention of youth smoking follow.

National-level approaches

Four policy interventions at national level were identified as helping to reduce youth

smoking prevalence, and associated inequalities. Increasing the price of tobacco products through taxation reduces smoking prevalence and may also reduce associated inequalities because of adolescent and low-SES group sensitivity to price. Public smoking bans (smokefree) contribute to the denormalisation of tobacco and the reduction of overall smoking prevalence through prevention and an increase in cessation. There is strong evidence that standardised ("plain") packaging is associated with an overall education in youth smoking and influences beliefs about smoking risks and its desirability. Bans on "point of sale" advertising (POS/ display bans) have been shown to be somewhat successful, at least for young people.

Local-level approaches

Three areas for consideration were proposed at the local level. Inconsistent retailer compliance with National Minimum Age of Sale Laws (NMA SLs) pointing to a need for active enforcement, multicomponent education strategies, and penalties for illegal sales had limited correspondence with reductions in youth smoking or changes to perceived access. Mass media campaigns designed to reduce youth smoking have been commonly employed and there is moderate evidence to suggest that they have an effect on smoking prevalence. Successful multi-level approaches tend to incorporate parental involvement, occur over an extended period, take place in schools, and be based on social and learning theories.

School-level approaches

School-based approaches to reduce adolescent smoking encompass tobacco-related health education as well as school tobacco policies (school-wide rules and penalties for students and sometimes adults regarding smoking on school premises). There is some evidence that prohibiting teachers from smoking, providing counselling for students caught smoking, and strictly enforcing school tobacco policies may have an impact on reducing youth smoking. School-based interventions have been found to possibly lead to longer-term reductions in prevalence but a combined "social competence" (knowledge and information for young people) and "social influence" (perceived social consequences) approach was the only type to achieve reduced smoking uptake at one year or less. No significant gender differences were found.

Cost-effectiveness

The review of literature found few previous studies that provided information on the

cost of the intervention and none produced a cost-benefit analysis.

2. Needs of policy makers

WP3 analysed findings from 8 focus group interviews with key stakeholders and policy makers and identified needs within the respective countries at national, local (regional and municipal) and school levels. These findings are detailed in D3.1. WP3 also identified other factors that influence policy making including the need to share best practice and suggested improvements for disseminating research; the importance of funding scientific research studies; the role of the media in policy development; the role of civil society; and the presence of a political champion in developing tobacco control policies.

3. Gaps in the literature

WP3 identified a large volume of literature on the prevention of youth smoking, albeit limited by quality, relevance and accessibility. Research needs identified included, examining the interrelations between the suite of possible tobacco control interventions, analyses of policies already implemented and how, why and to what extent they were successful in particular contexts. Methodologically, WP3 recommended mixed-methods approaches that would allow researchers to gain insights into the attitudes and behaviours of stakeholders, and the processes that allow programmes to work. The topics of intervention evaluation recommended by WP3 for particular attention included low SES youths and, especially, girls about whom evidence regarding interventions is scant and inconclusive, with the exception of price increases. Fine-grained evidence for policy makers that is context specific was also deemed necessary. Finally, recognising the absence of context-driven, cost-effective interventions, WP3 recommended analyses on the costs and cost-effectiveness of interventions in order that policy makers might make the best decision for their jurisdictions, using the most effective - rather than the cheapest - programmes.

4. Recommendations

WP3 identified the following recommendations for research:

1. Need for standardised outcome measures to ensure comparability and opportunities for meta-analysis, more controls and contextual information, longer follow-up periods and accurate modelling techniques.
2. Need for further research on new strands of programmes and

approaches with the most potential to date. This includes research focusing on social and peer networks, including and the role of influential individuals in schools, social media strategies, the combined social influence and social competence approach, and multimodal approaches with sound theoretical bases.

3. Need for studies with interrupted time series designs to be initiated before new legislation is enacted to enable real-world comparisons.

4. Need for more comprehensive equity-oriented research to target groups with a high prevalence of smoking in order to combat health inequalities.

5. Need for economic evaluations, or at least costs, of programmes to be reported. The cost-effectiveness of the programme is a crucial piece of information when seeking to implement an initiative, which is lacking in the majority of the available trials.

WP3 identified the following recommendations for information for policy makers.

1. Need for collaboration and coordination between separate organisations / stakeholders with similar messages (i.e. research and advocacy organisations, health care professionals, government workers). This will help reduce the volume of information received by policy makers and will help coordination, synthesize and refine arguments. Furthermore, organisational unification can send a strong message regarding potential policy changes.

2. Need for public health advocates, academics, and researchers to hold hearings, presentations, meetings, public forums to explain the scientific rigor of key pieces of evidence to policy makers. This could perhaps involve workshops to inform policymakers about how to evaluate quality, evidence-based research.

3. Need for researchers to engage key policy-makers in the research design process, identifying topics of interest, gaps in knowledge etc.

4. Need for alternative forms of dissemination. As we move into an increasingly digital world, researchers and public health advocates must identify new forms of information dissemination to reach broader audiences including both policy makers and their constituents.

5. Need to engage the public and encourage advocacy.

b) Deliverable D3.2 and Appendices (October 2018)

This consists of a summary report with recommendations based on attached Appendices A-D (detailed recommendations at cross-national, national, local and school levels) and Fine-grained recommendations for each of the 7 cities (Appendices E-L). A draft paper (Appendix M), and supplementary materials and sources (Appendices N-P) are also attached.

The implementation of strategies and programs at national, local and school level to prevent smoking among young people was assessed by WPs 4, 5, 6, 7, 8, 9 and 10 in relation to how they influenced smoking behaviours of 16-year-old adolescents in seven European cities. To prepare Deliverable D3.2 and Appendices, WP3 synthesised and translated the scientific evidence generated in WPs 4-10 into cross-city/cross-national, national, local and school-level recommendations as well as fine-grained recommendations for each SILNE-R city. These recommendations for the prevention of youth smoking are intended to support tobacco control policy decision makers in implementing strategies to prevent young people from smoking in local settings. In presenting these recommendations, attention is paid to programme costs and effectiveness in reducing inequalities in smoking.

WP3 developed the sets of recommendations below with reference to the findings of WPs4-10 and their conclusions.

WP3 went beyond the intended programme of work envisaged (development of fine-grained recommendations) by also developing a synthesised cross-city/cross-national set of recommendations as they were considered essential to provide context for implementation of the fine-grained recommendations and also to clarify the justifications and opportunities for transferability of policies from progressive frameworks. These latter drew on a synthesis of comparative evidence from various WPs and on the policy models and briefs developed by WP4 and WP5. Recommendations for national, local and school-level interventions were also developed, as were fine-grained recommendations for each of the 7 SILNE-R cities.

We summarise here the main results produced by our team (detailed recommendations are in D3.2 Appendices A-N).

Cross-national synthesised findings and recommendations

The cross-city/ cross-national recommendations developed from synthesised evidence across the seven cities are detailed in Deliverable D3.2 Appendix A and summarised here:

1. Overall adolescent smoking prevalence

There is no safe level of smoking and smoking prevalence among adolescents remains a problem in the 7 SILNE-R cities and, we know from other data, across the EU. We know from SILNE-R consultation group data that the landscape of health policy is replete with shifting priorities, and that adolescent smoking prevalence is commonly seen as just one of many health-related problems faced by adolescents, and not necessarily the most important one. Tobacco policy to reduce adolescent smoking prevalence is in danger of being swamped by competing prevention policies, with potentially disastrous consequences for continued reductions in adolescent smoking. Knowledge of the statistics of those who die from smoking - unlike any of the other problems above - mandates that we keep tobacco control at the top of the policy agenda. This necessitates constant reminders of the death and disability uniquely caused by smoking and separate it from any other of the prevention and promotion areas in health policy for young people.

Recommendation: Tobacco causes unique and disastrous consequences for adolescents and remains a problem. Keep tobacco at the top of the policy agenda in all countries.

2. Trends in smoking prevalence

There is some good news to be found in the analysis of trends in smoking between 2013 (SILNE) and 2016 (SILNE-R) with reductions in smoking prevalence in all socio-demographic and all socio-economic groups. Also, a smaller percentage of adolescents was exposed to smoking; fewer had a parent smoking; fewer had most of their friends smoking; and fewer were seeing teachers or students smoking at school.

Recommendations:

Current TC policies are taking effect, evident in reduced adolescent smoking prevalence across the SILNE-R cities. This suggests that current TC policies at national level are successful to some extent in preventing youth smoking. As there is no acceptable level of youth smoking this is the time for continued,

expanded and translated/ transferred policy development and implementation.

- **In countries where prevalence is lower, two broad approaches are required.**
 - **1. Continue with existing policies and interventions, ensuring consistent, transparent and strict enforcement of policies with leadership from committed staff and involving students in decision making.**
 - **2. Expand tobacco control efforts by adding new evidence-based interventions where they are lacking (e.g., improved tobacco-related health education programmes to include comprehensive, student-friendly and student-influenced resource materials for students). Also the development of initial and continuing specialist teacher education programmes in health education to include mandatory tobacco-related health education. (See draft paper- Appendix M)**
- **In countries where prevalence is higher and tobacco control environments are less progressive and less developed, an additional two approaches are recommended:**
- **These are:**
 - **3. Require compliance with extant treaty and other obligations. At a minimum, these reluctant countries must be encouraged to fulfill their obligations to children under the binding Framework Convention on Tobacco Control Treaty (FCTC) as well as EU commitments and duties integral to the full implementation of the Tobacco Products Directive (EUTPD) (2014/40/EU), and the COUNCIL DIRECTIVE 2011/64/EU on the structure and rates of excise duty applied to manufactured tobacco.**
 - **4. Support successful transfer of good evidence-based policy from countries with more progressive tobacco control environments. This would involve translating various measures, practices, and value systems into local contexts in usable ways.**
 - **At a simple level, this would mean raising the National Minimum Age of Sale of cigarettes in Belgium to 18 years, bringing it into**

line with other countries.

- **At a more complex level, and more difficult to achieve, it would mean translating the value and belief systems - and dominant discourses - underpinning dominant governmental frames, civil and business institutions, and Ministries for Health in countries with more progressive tobacco control environments, for use in countries with more stagnant tobacco control environments. In practice, this would require a number of steps: the evaluation of current beliefs and values regarding health priorities vs profit priorities in the latter countries; the re-prioritisation (through, for example, advocacy, branding, and legislation) of beliefs and values to support the prioritisation of health and health advocacy organisations; and on-going excavation, monitoring and evaluation of dominant belief and value systems - and dominant discourses - to support continued emphasis on health, and the right to health environments, and consequently, as demonstrated in SILNE-R data, lower youth smoking prevalence.**

The specific detail of what would inform the policy transfers that need to occur in order to "even the playing pitch" across European contexts is set out in the attached Appendices B-L; specifically, recommendations at national (Appendix B), local (Appendix C) and school (Appendix D) levels, and context-specific reports with fine-grained recommendations for each of the 7 cities in Appendix E - L.

3. Inter-country inequalities

The overall reduction in smoking prevalence noted in SILNE-R was not a homogeneous gain for young people, because drops in weekly smoking were unequal across the six cities. Notably, Latina experienced a small but non-significant increase.

Recommendations:

- **Uniquely in the 7 SILNE-R cities, no decrease in adolescent smoking was recorded in Latina and we recommend specific interventions in Italy. Existing smokefree legislation in Italy is good but implementation at school level is poor, with young people both smoking and observing others smoking in schools, Stricter implementation is required as well as ongoing monitoring of existing smokefree legislation.**

- **We further recommend urgent development of tobacco-related health education for teachers as well as for students with the goal of raising awareness of tobacco health harms and reducing smoking prevalence.**
- **Finally, we recommend specific time allocated in schools in Italy to tobacco-related health education.**

4. Social context and inequalities

Smoking decreased in all sub-groups and reductions were greater in groups with the highest baseline rate and adolescents most exposed to smoking in their family, in their school or among their friends had a steeper reduction compared to those less exposed. Friends smoking was a major contributor to smoking inequalities and to the slowing down of the smoking epidemic.

Social Networks

Smoking is a major contributor to inequalities and is implicated in a third of socio-economic inequalities in all-causes mortality life-expectancy. Despite reductions in smoking prevalence, changes are quite uneven across socio-demographic groups, countries and exposure groups. WP8 (Appendix 6b, Lorant et al.) analysed data to examine social networks, the extent to which the structure of smokers evolved between 2013 and 2016. They found that network separation is not changing for non-smokers. Between 2013 and 2016, homophily did not go up. Rather, smokers moved closer to a random network, diluting the "safety in numbers" dynamic, previously observed. More social capital and more prestige were still provided by having tried smoking and weekly smoking and this payoff seems not to be decreasing over time. However, this payoff is lower where School Tobacco Policies are stronger.

Recommendations:

- **Interventions to reduce the social capital and prestige associated with both having tried and weekly smoking are urgently required. One mechanism to do this emerging from this SILNE-R research is to develop stricter School Tobacco Policies, rigorously enforced, as such policies are associated with lower payoff in terms of social capital and prestige.**

Socio-economic status (SES)

As regards socio-economic status (SES) there was no clear shift in the pattern of association between weekly smoking and SES, although, on the whole, the decrease of weekly smoking was more pronounced in adolescents in the groups of lowest and highest SES, in adolescents whose parents had a low or high educational status, adolescents from the lowest decile or the two highest deciles (7th and 8^{th+}), adolescents living in households without either his/her father or his/her mother. Adolescents with low academic achievement benefited from the greater decrease in smoking.

Experimentation of smoking became more complex between 2013 and 2016. (complexification of smoking). Complex contagion may affect some groups more than others and contribute to inequalities between different groups (WP8, Robert et al.). Although smoking prevalence has decreased in several countries among both adults and adolescents, the decrease has been greater among higher socio-economic status (SES) smokers and less for lower SES smokers. The lowest socio-economic group had the highest prevalence of having tried smoking. The association between lowest SES and having tried smoking remained significant between 2013 and 2016 and also increased during that time.

Other inequalities were also evident in the study of complex contagion. Adolescents whose parents had a low level of education were more likely to be smokers than those whose parents had a high level of education. In 2013, having tried smoking was more frequent among students with lower academic performance than among students with high academic performance. The association between low academic performance and having tried smoking remained significant, but decreased between 2013 and 2016.

Recommendations:

- **To address increasing inequalities evident in the data on complex contagion, special interventions are required for low SES students (inequalities present and increasing) and also for lower-achieving students (inequalities present but decreasing).**
- **All policy interventions should include specific reference to how SES inequalities will be managed.**

- **Even where tobacco control is considered under-resourced, the needs of low SES students and schools, who have higher smoking prevalence on all measures and who are most at risk of multiple disadvantage, must be preferentially provided for.**
- **Targeted interventions at school level with high proportions of low SES groups, e.g., vocational schools, non-gymnasiums, and similar school types and tracks.**
- **Adapting of previously successful approaches in tobacco-related health education (such as whole-school approaches and *Healthy Schools Initiatives*) should be considered as these more inclusive and democratic approaches may be more successful in these contexts.**

Gender

WP8 (WP8, Appendix 9c, Paper 3) aimed to test whether smoking beliefs among adolescents differed according to gender. They found that negative social beliefs, such as “getting into trouble” or “friends’ and parents’ disapproval”, were more common in girls, while beliefs about the dating-related aspects of smoking, mostly positive social beliefs, were more common in boys. Secondly, they identified Germany and Belgium as the only countries with no gender differences in any of the belief scales. In other countries, girls had more positive individual beliefs (Italy), negative individual beliefs (Finland, Portugal), and negative social beliefs (the Netherlands, Ireland), while boys had more positive social beliefs in Finland, Portugal, and Ireland.

Recommendations:

- **Use negative social beliefs as part of interventions for adolescents. They displayed the largest gender and country variations and have important potential, particularly for their short-term focus, important for young people for whom interventions highlighting long-term health risks and harms have not been particularly successful.**
- **Develop gender-specific interventions to target these smoking related beliefs, using two opposing strategies, depending on whether such programs are addressed to boys or to girls.**

Migrant families

Data from SILNE-R (Ref WP6 Mlinarić et al. Migration) suggests that intra-migrant inequalities and cultural-economic origin should be considered when implementing school-based tobacco prevention programs in European countries. Previously, studies on smokefree private (family) spheres were characterised by a lack of attention to differentiation in migrant backgrounds, in relation to gender, and in relation to differences in cultural-economic origin, such as non-Western migration from African or Eastern European low and middle income countries (LMIC). This was a notable lacuna given the impact of parental migration background on adolescents' exposure to secondhand smoke in their homes. WP6's analysis of the association between smokefree family environments (SFFEs) and maternal and paternal migration showed that Eastern European and Arab migrants are, in comparison to the domestic population and other cultural-economic migrant groups, at a higher risk of being exposed to secondhand smoke in the home.

Recommendations:

- **When implementing school-based tobacco prevention programs in European countries, intra-migrant inequalities and cultural-economic origin should be considered.**

5. School heterogeneity

Changes in smoking prevalence were heterogeneous across schools as well as across cities and countries showing that improvements in national tobacco control policies are not sufficient to fully prevent youth smoking. School and local level improvements are therefore also necessary.

Recommendations:

- **Recommendations at the national level need to be accompanied by recommendations at the local and school level as the former will not affect all young people equally. It is recommended that school-level interventions be firmed up, and the role of school tobacco policies (STPs) enhanced especially by more uniform and consistent enforcement with student and teacher commitment.**

6. Cost and cost effectiveness

The costs of implementation of smoking prevention strategies targeting adolescents

are low, disregarding of the type of strategy, level of implementation or country. All five strategies examined are highly cost-effective for a very low minimum level of prevalence reduction. For all cases, even the most conservative ones, a minimum 1% of relative prevalence reduction of smoking among adolescents is sufficient to obtain highly cost-effective results.

Non-school smoking bans are the least costly to implement

Non-school bans, together with the school bans were the most cost-effective strategies.

Investing in these strategies, and combining them with other measures, as comprehensiveness of the bans or taxation of tobacco products, may lead to a higher reduction of tobacco smoking prevalence at the population level, while still guaranteeing their high cost-effectiveness.

Recommendations;

- **Routine collection of cost/cost effectiveness data to be included in all monitoring of STPs.**
- **Cost effectiveness estimates to be incorporated as part of strategy to inform policy makers of benefits of STP implementation.**

National-level recommendations

In order to understand the unequal adoption of tobacco control policies across the seven participating countries, WP5 examined the variation that exists regarding policymaking processes at national level within the seven SILNE-R countries and assessed what conditions or factors influence the formulation, adoption and successful implementation of tobacco control measures.

Within the SILNE-R countries, policymaking occurs from the ‘top-down’, as legislative decisions are made by central government and implemented at regional and/or local level. Across the six countries where interviews with policymakers were conducted, the interviews found that the overall aim of the policies are focused on protecting and preventing children from tobacco industry marketing and exposure. While the degrees and the nature of the various policies differed among the different countries, some similarities are evident in terms of the processes and factors needed to advance tobacco control measures.

The Advocacy Coalition Framework (ACF) was used by WP5 to understand policymaking processes and to identify the factors and actors, which influence policymaking processes. The main tenet of the ACF is that a policy subsystem (in this case, the tobacco control subsystem) is influenced by different (competing) coalitions, and centred around certain beliefs. These beliefs tie coalitions and actors together, and influence how policy problems are addressed. According to the ACF, one subsystem often dominates the other and legislators adopt the dominant frame and appear relatively unreceptive to information contrary to this frame.

Differences exist in relation to the dominant frame (health-side versus tobacco industry side) across the SILNE-R seven countries, with a number of factors explaining this subsystem dominance.

These factors include:

- Network strength
- Tobacco industry economic presence
- Ideology
- Lobbyism- corporatism
- Other factors: e.g. policy transfer; public support

Using the ACF framework, the seven SILNE-R countries can be classified into three broad types: progressive, moderately progressive, and stagnant. Finland and Ireland are progressive; there is broad support among policymakers, stakeholders and members of the public for strong tobacco control policies. Belgium and the Netherlands are moderately progressive; there are active health NGOs but the political agendas of the ruling parties often obstruct the introduction of stronger tobacco control policies. Germany, Italy and Portugal are stagnant; there is weak implementation of tobacco control policies, combined with poor or inactive health NGOs.

1. Cognisance of contexts for policy frameworks

At national level, it is recommended that cognisance is always taken of the national policy context (see ACF/PEF frameworks above) and that dominant values and beliefs that negate tobacco control are exposed and challenged; and efforts directed at

changing these to ones that support tobacco control, for example, by using intersubjective discourses and promoting robust health advocacy organisations.

Recommendations (essentials for development of strong tobacco control policy using understandings from ACF/PEF and see also D5.3):

- **The complexities of policy change processes may not be well understood by policy makers themselves nor by those (tobacco control stakeholders) seeking to influence policy makers in the realm of tobacco control. A short general information guide (with infographic/ pictorial) explaining the layered complexity of policy change would be helpful, as would a specific guide in relation to tobacco control to prevent adolescent smoking. Such a guide would include reference to the constituent elements that influence policymaking processes - dominant frame; civil/business institutions; government institutions, and how they operate both singularly and in tandem.**

Silne-R D4.3 and D5.3 materials could supply much of the required evidence base and structure required. It would include exemplars of policymaking processes that support strong TC measures.

- **In terms of a dominant governmental frame: Develop public discourses that highlight tobacco harms, are protective of citizens, and emphasise child health.**
- **In terms of civil and business institutions: Develop strong health NGO advocacy groups, particularly in countries where they are weak or non-existent (e.g., Germany, Italy, Portugal). Make networks and follow example from countries where health advocacy groups are strong (e.g., Finland, Ireland).**
- **We recommend an audit of current organisations and interventions (resources, development) to support them individually. We further recommend that existing networks of TC organisations (ENSP/ SFP/ FCA) establish sub-groups charged with advocating for national-level transferability of knowledge that is based on the complex policy monopoly environment within which each country operates.**
- **Encourage health advocacy groups to forge close co-operation with government while developing aligned policy stances between TC and**

government views. This can be aided by dissemination of tobacco control research, to the public and the government, showing health benefits of highly cost-effective tobacco prevention interventions; by bringing novel practical interventions to general notice; and by showing the popularity with the general population (electorate) of good tobacco control legislation. NGOs should also be free and willing to support political champions of Tobacco Prevention public health policies. NGOs should align their demands, for protection of children from the harms of smoking and of second-hand smoke, with the public health efforts of Health Ministries. NGOs can strengthen political freedom, of TC political actors, from Tobacco Industry influence by insisting that governments are complying with FCTC 5.3. They can also dampen down, reduce and help to eliminate the influence of pro-tobacco institutions such as retailers by supporting and encouraging the banning of payment for tobacco display and the banning of sponsorship by pro-tobacco institutions. These efforts can be reinforced by extending the negative images of the tobacco industry established in progressive TC cultures to ones with weaker cultures. This can be facilitated by fostering strengthened links between national tobacco prevention coalitions which collaborate to identify successful, transferable, context-specific strategies.

- In terms of governmental institutions: Create clear strong guidelines regarding interpretation and implementation of FCTC Article 5.3, particularly regarding the meaning of "transparency" (note, Italy). Advocate for Ministry of Health capacity in TC, ensuring adequate numbers of personnel with specific focus on TC, whose work is not diluted by other prevention areas.
- Overall, strengthen health monopolies and weaken tobacco industry monopolies.
- Pay attention to moments of potential change when stable policy making processes are disrupted by moments of crisis. At these times, policy change may be more likely to occur.

2. Introduce, expand, enforce progressive measures

Progressive tobacco control policy environments that are characterised by systematic

transposition of, strong compliance with, and strict enforcement of the Framework Convention on Tobacco Control (FCTC) treaty; the "Big Six" MPOWER¹ policies; the EU Tax Directive and the EU Tobacco Products Directive (TPD) have been shown to be successful in reducing youth smoking prevalence. SILNE-R cities in countries that have lower youth smoking prevalence are characterised by such progressive tobacco control policies (e.g., Finland, Ireland). These countries also generally have better environments at local and school levels for preventing youth smoking, as well as demonstrating policy framework with dominant governmental frame, civil and business institutions, and Ministries for Health that promote health over tobacco industry profits. We make a strong recommendation for firming up these policies at national level, especially in countries found to have moderately progressive tobacco control policies (Germany, Belgium, Netherlands) and those whose policies lag behind (Italy, Portugal).

Recommendations:

All countries in which SILNE-R cities are located have tobacco control policy and legislation. Countries may be characterised as more or less progressive, moderate and stagnant. For further reductions in youth smoking, two broad policy approaches are required at a national level:

- **a comprehensive rolling-out of demonstrated effective policy (e.g., FCTC MPOWER) bringing countries with more stagnant and moderate tobacco control policies into line with countries with more progressive ones;**
- **a fine-tuning of tobacco control policy and legislation in individual countries taking into account the current TC landscape in each country as well as the country-specific beliefs and values that underpin policy, legislation and practice.**

We recommend improving/ tightening up national-level TC measures, bringing all countries to a national standard in line with the most progressive countries, as set out in the FCTC. Specifically, this means:

¹ MPOWER: Monitor tobacco use and prevention policies, • Protect people from tobacco smoke, • Offer help to quit tobacco use, • Warn about the dangers of tobacco, • Enforce bans on tobacco advertising, promotion and sponsorship, and • Raise taxes on tobacco.

- **More rigorous implementation, enforcement and oversight of FCTC policies recommendations;**
- **Raising NMAS to a minimum of 18 years in all countries (In Belgium it is currently 16). All SILNE-R countries should consider following the example of 6 U.S. states (California, New Jersey, Massachusetts, Oregon, Hawaii and Maine) and at least 350 localities that, as of 19th September 2018, have raised the minimum age of sale to 21 years (Campaign for Tobacco-Free Kids, 2018). As the vast majority of smokers start smoking before the age of 20, enforcement of such a law would likely result in further decreases in prevalence. Enforcement for 21-year-olds may also be easier than for 16-18-year olds, in terms of assessing how old they look.**
- **Better enforcement of smokefree legislation is required, particularly in countries with more stagnant tobacco control policies and legislation. In Italy, for example, high visibility of smoking on school premises by students and staff was recorded, despite the existence of comprehensive national legislation. A lack of monitoring of smoke-free policy was identified particularly in Italy and it is highly recommended that this be rectified.**
- **In more progressive countries with ambitious ‘endgame’ aspirations, further efforts are also needed. For example, in the most progressive SILNE-R country (Ireland) no improvement (70/70) in tobacco score was recorded between 2013 and 2016 (Joossens and Raw 2017). An improvement in smoking cessation services and more consistent mass media campaigns are recommended.**

3. Access

The vast majority of SILNE-R adolescents were unable to legitimately purchase cigarettes from retailers because they were under the legal age of purchase, *i.e.*, 18 years (16 years in Belgium), as specified by National Minimum Age of Sale Laws (NMA SLs). NMA SLs are designed to prevent young people from accessing cigarettes, with the aim of reducing youth smoking uptake and prevalence. Nevertheless, participants accessed cigarettes with ease, using a variety of methods to obtain cigarettes from: ‘legitimate’ retailers or vending machines; people above the

legal age of purchase; friends; ‘proxies’ (known or stranger adults who purchased cigarettes on their behalf); stealing from family members; buying from other young people; and purchasing cigarettes abroad. Methods to access cigarettes differ across cities, reflecting variation in the implementation or enforcement of NMASLs at a national or local level. Policy recommendations (WP9) include:

Recommendations:

- **Meaningful enforcement is the most important measure. Enforce national minimum age of sale laws. Raise minimum age of sale to 18 years in Belgium in line with other countries. Consider raising NMASL to 21 years.**
- **Remove all vending machines as they are not, and cannot be, adequately policed.**
- **Strengthen supply side restrictions. Consider the introduction of a licencing levy or penalty to discourage smaller retailers from supplying cigarettes to underage purchasers.**
- **Take action on proxies via awareness raising.**
- **Policy-makers should consider how ‘holding students back’ (*i.e.*, requiring students to repeat an academic year) can change peer group configuration and dynamics – particularly with regard to accessing cigarettes - and shape their interventions accordingly.**
- **A trans-national European approach - the fluid borders of Europe and the mobility of its citizens - means that successful policy-making should be seen as a supra-national/international endeavour.**
- **Further context-specific recommendations are detailed in Appendix D.**

Local-level recommendations

WP3 synthesised and translated evidence from SILNE-R WP4-10 in order to make local-level recommendations for the prevention of youth smoking. Using the prism of WP4 policy models and briefs, and drawing on WP6’s qualitative assessment of expert interviews (n=56) with European decision makers and stakeholders, and a consultation group, we make some observations. These observations and resulting

recommendations are described in detail in D3.2 Appendix C,

Local context

Separate from a national policy and legislative context, schools exist within local contexts that must be taken into account in order to reduce and prevent adolescent smoking. Local primary prevention in schools must be framed with adequate national tobacco control policies, such as effective tobacco taxation and advertising bans, but features of the local context may support or hinder reductions in smoking prevalence among young people. In particular, local factors can create environments that, rather than discouraging young people from smoking, serve to facilitate youth tobacco use. This occurs despite national legislative frameworks, as a consequence of poor local enforcement, or lack of specific policy or legislation at the local level.

Barriers at the local level

Barriers that we identified to successful local-level implementation of tobacco control activities to prevent youth smoking are, lack of a unified structure that deals with implementation, monitoring and enforcement of national-level policy and legislation; lack of an 'implementation plan' or strategy or endgame vision for prevention of youth smoking; lack of resources for tobacco control at local level; uneven efforts regarding denormalisation and specifically, advertising bans; inadequate expansion of smokefree spaces, especially those where children may be (all indoor and outdoor areas in schools, health facilities, crèches, recreational facilities, sports stadia); and need for increased efforts for population sub-groups suffering specific disadvantage regarding smoking prevalence (low SES groups; some school types and tracks).

Suggested solutions at the local level

Suggested solutions to mitigate these barriers at the local level include tobacco taxation, institutional structures, expansion of smokefree spaces, and community

involvement. The use of intersubjective discourses - especially regarding evidence bases and child frames - is necessary and health advocates must employ intersubjectivity as a way of building support and achieving policy consensus around smokefree (and other policy) initiatives at the local level as much as at (inter-)national and school levels. These suggestions and derived recommendations are detailed in D3.2 Appendix C. A summary of local-level recommendations to support the prevention at youth smoking is listed here.

Recommendations:

- **Improve national-level tobacco control policies, in particular with regards to taxation, and advertising bans, to bring all countries to a uniformly high level of tobacco control progressiveness.**
- **Ban vending machines in all jurisdictions.**
- **Institute a national-level office of an ombudsman/woman charged with national, local and school-level oversight of tobacco control and particularly the prevention of youth smoking.**
- **Prioritise low SES groups as they have higher smoking prevalence than everyone else and pool limited resources for socially disadvantaged contexts. At a local level, this could be achieved by specifically targeting youth centres, vocational schools, and non-gymnasiums.**
- **Introduce comprehensive smoking bans on hospital premises and in health facilities. Expand child-related smokefree contexts, such as cars carrying minors and certain smokefree outdoor areas (e.g., playgrounds, public parks).**
- **Consider localised community-group interventions for tobacco control, e.g. in the arts arena.**

- **Use intersubjective discourses at the local level.**

School-level recommendations

SILNE-R findings spanned a wide range of school-level issues generating associated recommendations with particular emphasis on school tobacco policies, smoking beliefs, smoking norms, and social networks. Summaries are presented here for three central planks of school-level policy recommendations (detailed accounts are in Appendix D).

1. SmokeFree Schools

Overall, it is recommended that, to ensure smokefree schools, strict national-level legislation is required with proper enforcement where smokefree bans already exist. Absolute and comprehensive bans are preferable to partial bans as visibility interferes with denormalising strategies and consequently with reductions in prevalence.

Young people reported varied levels of adherence to smoke-free school policies in their respective schools and wide variation in enforcement within schools, suggesting that some teachers were stricter than others, and that rules were more consistently enforced against certain segments of the student population. Wide variation was also seen in observation of overt and covert school-site and off-site school time smoking. The relative success of smoke-free school policies appeared to depend primarily on institutional (school) context, although the broader city/country context also appeared to have some impact. Smokefree school policies ensuring that adolescents see no smoking and know that smoking is not allowed on the school premises increase adolescents' perceptions of teacher disapproval for smoking. Recommendations in full (Appendix D) are summarised here.

Recommendations:

- **Ensure smokefree school policies are in place and enforced.**
- **Enforcement of policies needs to be consistent and meaningful (e.g. surveillance of the whole school site, meaningful sanctions).**
- **Ban school site-peripheral smoking/ restrict student movement.**
- **Implement a whole school approach, include students to attempt to reduce reported cynicism, and emphasise physical and emotional wellbeing and care over sanction, reframing smoke-free school policies in**

a more positive and supportive light, whilst simultaneously inviting young people to consider the personal impact of their smoking.

- **A contextual (local [geography; teacher characteristics] and broader) approach should be taken to considering school based tobacco control policies.**

2. School Tobacco Policies (STPs)

School Tobacco Policies (STPs) limit tobacco use by defining whether or where adolescents and adults are allowed to smoke and by defining the penalties for those caught violating the smoking rules. The impact of STPs depends largely on how these are implemented. Key elements identified for effective implementation of STPs led to these recommendations (WP4), in more detail in Appendix D (from ‘Key elements for effective implementation of School Tobacco Policies’ *Schreuders and Nguyen*).

Recommendations:

- **Involve all school buildings and premises and do not allow adolescents to leave the school area during school hours.**
- **Apply STPs to all individuals during all times.**
- **Ensure that all staff members strictly enforce the STP.**
- **Establish clear rules that provide staff members the formal authority to sanction non-compliance with STPs.**
- **Ensure that staff members progressively sanction adolescents who violate the STPs and support those who want to stop smoking.**
- **Provide prevention and educational efforts to explain why the school chooses to prohibit smoking.**
- **Embed STPs in continuous monitoring and adaptation cycles.**

Smokefree schools: Role of Staff in enforcing school tobacco policies

Staff capability was one of the three mechanisms identified by WP7 in their realist review that explained staff’s participation in the school smoking ban enforcement. In order to explain further how different factors may influence staff’s capability to enforce school smoking bans, they analysed 84 school staff interviews from 28 schools in seven European cities. WP7 used program theory and found three generative mechanisms that explained staff members’ enforcement of school tobacco policies (STPs). Staff commit when they feel that: 1) health promotion (*i.e.*, smoking

prevention) is part of the school's core task and staff members' role and everyday duties (readiness and responsibility); 2) their contribution is meaningful and leads to positive outcomes (motivation); and 3) they have the necessary capability for the enforcement (confidence and comfortability). Program theory further showed how national context (*e.g.*, legislation), school circumstances (*e.g.*, existing workload), individual factors (*e.g.*, smoking status) and interpersonal processes (*e.g.*, staff-student relationships) may weaken or strengthen the link between implementation component and mechanism. The policy recommendations are based on their realist review and also on the analysis explaining staff members' capability for school smoking ban enforcement.

Recommendations for schools to enforce school tobacco policy (STP)

- **Establish a comprehensive smoking ban that includes students, staff and visitors and includes all areas inside and outside schools, including areas bordering school premises (24/7).**
- **Create a school culture where enforcement of STPs is institutionally anchored and promoting students' health and wellbeing is part of a school's core tasks.**
 - **Principal of the school and senior management have a key role.**
- **Communicate STPs through a written policy.**
 - **This ensures that the rules are unambiguous. Written policy may strengthen staff's authority.**
- **Ensure that the written policy presents guidelines and practices that are easy for staff to enforce.**
- **Use educative and supportive consequences for those who break the smoking ban instead of traditional punishments (*e.g.*, detention).**
- **Develop enforcement strategies that make it easy to overcome enforcement problems, *e.g.*, prohibiting students from leaving school premises when smoking takes place outside school borders.**
- **Engage all staff in STP enforcement, *e.g.*, through break monitoring.**
- **Offer cessation services for smoking staff and students.**

Recommendations for policy makers to support STP enforcement

- **Legislate a comprehensive smoking ban for schools, including a smoking ban in the areas surrounding schools. Legislation should ensure that school staff have authority to intervene in smoking outside of school premises.**
- **To support schools' comprehensive smoking ban, national tobacco control measures, especially smoking bans in public places, should be comprehensively and strictly implemented to gradually de-normalize smoking.**

3. Tobacco-related Health Education

Implementation of tobacco-related health education varied widely across the 7 cities in 7 countries, but also across schools within each city, indicating a need for further development of school curricula related to health education. In general, student smoking was not considered a major issue in schools. Rather, the focus was more on other health issues such as drugs, alcohol, mental health problems, and bullying which were considered greater and more acute problems than tobacco use. The need to prioritise other health areas was offered as an explanation for accepting the *status quo* in tobacco-related health education and for putting less effort into improving it. This was the case for all seven cities regardless of how well or poorly developed their tobacco-related health education was. The use of traditional teaching methods for tobacco-related health education was considered inadequate and ineffective. Resources for tobacco-related health education were noted as inadequate in most cities. Participants expressed a need for up-to-date, easily accessible, on-line teaching materials in relevant languages. Additionally, in most countries, a need for updated training for health education teachers was identified. Overall, the expertise of NGOs and local health authorities, school health services and local education authorities was recognised as valuable, and a need for long-term planning for collaboration with schools was noted. New tobacco products, including e-cigarettes, were not emphasised by participants. The report of WP7 suggests the following broad recommendations, described in more detail in Appendix D;

- **As a statutory requirement, include tobacco-related health education (including education on new tobacco products) to be fully integrated into the national curriculum of all lower and upper secondary schools.**

- **Every school should have a comprehensive school health education curriculum adapted to local circumstances, within which tobacco-related health education is an integral part.**
- **Education and health sectors at national, regional and local level should collaborate when developing school health education curricula.**
- **Update content and teaching methods of tobacco-related health education with input from students. The content should follow changes in new tobacco and tobacco-like products that the tobacco industry continuously brings to the market.**
- **Health education teachers should have special training for this subject and should be offered on-going possibilities for continuing education during their careers.**
- **Each school should have a plan for how external resources (*e.g.*, local health authorities, school health services, NGOs) are used systematically to support tobacco-related health education.**
- **Each country should create a web platform where schools could have easy access to up-to-date free teaching materials in local languages to support tobacco-related health education.**

Fine-grained recommendations for 7 SILNE-R cities (Appendixes E-L)

Evidence-based context sensitive recommendations were developed for each of the seven cities in SILNE-R. These fine-grained recommendations are based on findings specific to each city and are structured to provide guidance for tobacco control policy decision makers in implementing strategies at national, local and school level in each of the seven cities. Recommendations are too many to be summarised here but are described in detail for each of the 7 cities in Appendix E (Amersfoort), Appendix F (Coimbra), Appendix G (Dublin), Appendix H (Hannover), Appendix J (Latina), Appendix K (Namur), and L (Tampere).

List of WP3 Deliverable 3.2 Appendices A-P

1. Appendix 3.2 A

Recommendations to Prevent Youth Smoking: 3 Contexts & Cross-National Evidence

2. Appendix 3.2 B

Preventing youth smoking: national-level recommendations

3. Appendix 3.2 C

Preventing youth smoking: local-level recommendations

4. Appendix 3.2 D

Preventing youth smoking: school-level recommendations

5. Appendix 3.2 E

Fine-Grained (Evidence-based, Context Sensitive) Recommendations at (Inter)National, Local and School Levels to Prevent Adolescent Smoking in Amersfoort, The Netherlands

6. Appendix 3.2 F

Fine-Grained (Evidence-based, Context Sensitive) Recommendations at (Inter)National, Local and School Levels to Prevent Adolescent Smoking in Coimbra, Portugal

7. Appendix 3.2 G

Fine-Grained (Evidence-based, Context Sensitive) Recommendations at (Inter)National, Local and School Levels to Prevent Adolescent Smoking in Dublin, Ireland

8. Appendix 3.2 H

Fine-Grained (Evidence-based, Context Sensitive) Recommendations at (Inter)National, Local and School Levels to Prevent Adolescent Smoking in Hannover, Germany

9. Appendix 3.2 J

Fine-Grained (Evidence-based, Context Sensitive) Recommendations at (Inter)National, Local and School Levels to Prevent Adolescent Smoking in Latina, Italy

10. Appendix 3.2 K

Fine-Grained (Evidence-based, Context Sensitive) Recommendations at (Inter)National, Local and School Levels to Prevent Adolescent Smoking in Namur,

Belgium

11. Appendix 3.2 L

Fine-Grained (Evidence-based, Context Sensitive) Recommendations at (Inter)National, Local and School Levels to Prevent Adolescent Smoking in Tampere, Finland

12. Appendix 3.2 M

Tobacco-related health education to prevent youth smoking. Draft paper for scientific journal.

13. Appendix 3.2 N

Background policy/ legislative supplementary material. WP3 data collection.

13. Appendix 3.2 P

Sources used in WP3 D3.2 Final report and recommendations, and Appendixes A-M