

Urban environment, physical activity and obesity: a contextual analysis.

Preliminary results of a pilot study in Paris (France)

Introduction: Paris is characterized by its heterogeneous demographic composition, a dense urban environment and very high population densities. There are cities in the city. Place where people live is an important factor in determining inequalities in health outcomes and health behaviors. The main hypothesis of our research is that both individual and contextual characteristics have an impact on health and behaviors. The social-ecological theory proposes that physical and social environments influence obesity through their effect on individual behaviors. **Methods:** The study was based on a phone survey among a sample of Parisian population. We designed a complex sample protocol with three degrees random sampling. The survey provides information on respondents' demographic characteristics, perceived health, physical activity, height and weight, social capital and perceptions of the neighborhood environment. The data analysis is based on multilevel models to take into account the hierarchical structure of the data. **Results:** Between November 2006 and December 2006, computer-assisted telephone interviews were completed by 732 landline telephone subscribers and 118 exclusive cell phone subscribers. Mean BMI for men was 24.2 and for women it was 22.2. Concerning obesity, the first contextual analysis indicates a strong neighborhood effect on obesity. **Discussion/Conclusions:** This pilot study allows obtaining robust data concerning perceived health and behaviors among the Parisian population. The first analyses help to better understand the individual and contextual determinants of obesity and overweight. The comparisons between districts constitute the originality of this study because this kind of data did not exist until now.

Emmanuelle Cadot,
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Obesity & Physical activities Surveillance and policy activities in South Korea

As the major disease spectrum has changed over the decades, South Korean government must confront major challenges. In this presentation, epidemic of obesity, surveillance system for obesity and governmental policy activities in South Korea would be introduced. Obesity epidemic in Korea: In Korea, obesity-related medical expenses accounted for 0.91% to 1.88% of total national health expenditures in 1998, and this socioeconomic burden is likely to increase in the future. In Korea, the prevalence of obesity (BMI>25) among adults has increased 1.6 times to 32.4% (35.2% in male, and 28.3% in female in 2005) and children and adolescents obesity aged 1-19 years is 11.5% in male and 9.7% in female, showing rapid increased rate. As for the physical activity, regular daily exercise rate among adults in 2005 is 18.8%. The regular physical activity of adolescent aged 12-18 years current rate is 7.1% and the high density physical activity rate is 33.91% in 2005. Surveillance and information system: The Korean Ministry of Health and Welfare, and the Korean Institute For Health and Social Affairs have conducted a "The Korea National Health and Nutrition Examination Survey (KNHANES) " every three years. A stratified multistage probability sampling design has been used in this survey. The data covers Koreans over the age of 20 and their health behavior such as smoking habits, drinking habits, exercise and medical utilization, and dietary habits. Also, Children health survey was started since 2005. Current Korean policy activities for Obesity Prevention: To improve the health condition of Korean people, the government has been developing and promulgating a series of policies, and implementing many projects. Korean Government announced long-term plan and goals in Health 'New Health Plan 2010' in 2005. Also to obtain the goal and objectives, Ministry of Health and Welfare has developed the program and operated the 'obesity prevention clinic', community -based obesity management program in 10 public community health centres since 2006.

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The Victorian Health Monitor – A Biomedical and Risk Factor Survey

Purpose: The Victorian Health Monitor (VHM) was conducted to inform the feasibility of conducting a larger scale survey across Victoria, Australia in 2008/09 and to provide a model for conducting similar surveys in other states of Australia. The survey will be conducted every five years allowing for comparison between current and future levels of overweight and obesity, diabetes and risk factors for heart disease in the adult population. The VHM will be integrated with broader national initiatives such as the National Diabetes Surveillance System. **Methods:** The VHM study was undertaken between April and August 2007. Cluster sampling was used with sample clusters based on the Australian Bureau of Statistics Census Collector Districts (CDs). One eligible adult aged 25 to 70 years from each household in each CD was randomly selected to participate in the study. The VHM comprised a cardiovascular risk factor survey, a self-administered dietary habits questionnaire and the collection of anthropometric and biomedical measurements. The study protocols were based on internationally benchmarked procedures used in population surveys for anthropometric measures and for carrying out venipuncture and laboratory testing. **Results:** The study determined barriers to participation such as fasting for the blood glucose test and participant willingness to have anthropometric and biomedical measures taken at a nearby testing site. Strategies were identified for optimising the participation rate. **Conclusions:** Future health measurement data collections such as the VHM are required to determine outcomes of major public health initiatives and to assess the growing impact of obesity and type 2 diabetes.

Loretta Vaughan,
Adrian Serraglio

Surveillance Data Identifies an Obesity Syndrome. What are the Likely Determinants?

If children are overweight or obese by four years of age the problem is likely to track into adolescence and adulthood with consequential development of chronic conditions. Australian population surveillance data shows that children's birth weight is increasing in recent years and that by four years of age twenty percent are overweight or obese. Other population surveillance data suggest this may be part of a family syndrome of weight gain which is driven by changing social determinants. These data come from cohort surveillance which shows that the age group most likely to put on five kilograms or more, over an average follow up period of four years, were the 18 to 39 year age group, who comprise the parent group of four year olds. This was true for both genders in this age group and weight gain was substantially and significantly greater than older age groups. Together these data suggest that overweight parents, increasing weight at birth and the proportion of children overweight by four years of age, comprise an obesity syndrome which has implications for surveillance and targeting of the obesity problem. Recent literature reviews suggest that the energy intake/energy expenditure equation is no longer an adequate explanation for obesity and that this reductionist theory on its own hides the complexity of developing and changing determinants that are interacting with the energy equation and driving weight gain. The importance of these variables will be discussed for inclusion in surveillance programs together with the changing family context. Surveillance systems have an important part to play in addressing the obesity epidemic but it is important they include the right determinants of the problem.

David Wilson

Tipping Points in Obesity – Experts Views of Ways to Change the Problem

This survey reports on the ways that obesity professionals; i.e. those working with the problem of obesity in different contexts and professional situations. It identifies the main things that need to be done to start the process of change in the obesity epidemic, from each health professional's experiential viewpoint. The phenomenon of change in society usually starts with a "tipping point." A "tipping point" is described in Malcolm Gladwell's book on the subject as the way in which trends, ideas and social behaviour take off in society. The spread of social behaviours is likened to an epidemic of contagious disease when social factors converge and the epidemic achieves critical mass and crosses a threshold. This point of take off is described as the tipping point where change begins and is acceptable to large sections of society. Experts in the field of obesity in this survey have identified "tipping points" under a number of headings including: inter-sectoral engagement, regulation/legislation, environmental change, building infrastructure, taxation changes, economic incentives, food and nutrition changes, promotion/marketing, empowerment and prosecution. Examples will be given under each heading. The survey of professional groups is an area of qualitative development for the business of population surveillance. Professionals working in specific disease areas have their own ideas of how problems occur in different population sub-groups, how they are sustained and ways in which they may be changed. Adding surveys of these professionals to population surveillance planning may enrich future population surveys.

David Wilson

Obesity – one of the main risk factors for noncommunicable diseases in Herzegovina – Neretva Canton (Bosnia and Herzegovina)

Introduction: Last years noncommunicable diseases have been the leading public health problem in develop countries as well in developing countries. Among them is a huge number of diseases which are in correlation with behaviour, with bad living habits and life styles. Noncommunicable diseases are very common in Bosnia and Herzegovina and in Canton Herzegovina-Neretva as well. In this paper we will show our experiences and our results collected in Ambulance for prevention of risk factors for noncommunicable diseases. **Material and methods:** We used a dates from Ambulance for the prevention of risk-factors which exists last five years. Our method was retrospective, epidemiological. All relevant datas are statistically analysed and some of them presented in tables and graphics. **Results:** Among our examiners 73,1% are overweight, in different levels, 39,5 % have high level of serum cholesterol, 44,2% high blood pressure, and 48,1% have a high level of blood sugar. We noted lack of physical activity by 73,1% examiners. **Conclusions:** Obesity is a very important health risk in Herzegovina –Neretva Canton. There are also presented other health problems connected with obesity.

Zarema Obradović

The “weight” of education: The effects of educational level on reported levels of overweight and obesity, Umbria, 2006

Introduction: The nutritional status of a population is an important indicator of its health status. Overweight and obesity affect quality of life and life expectancy and are associated with a number of adverse health outcomes. **Methods:** The Umbria region participated in PASSI 2006, a cross-sectional survey used as pilot study for the national behavioural risk factor surveillance system. Telephone interviews were conducted of 800 residents 18-69 years chosen randomly from the registers of the four local health units. Questions were included on weight and height, which were used to calculate body mass index (BMI); overweight was defined as BMI 25.0-29.9 and obese as ≥ 30.0 . **Results:** A total of 43.7% were overweight/obese (33.5% overweight and 10.2% obese). Men were more likely than women to be overweight/obese (56.1% vs 30.9% $p < 0.000001$); a gradient was observed with increasing age (30.5% at 18-34 years, 39.7% at 35-49 years, and 57.7% at 50-69 years; $p < 0.00001$) and decreasing educational level (55.8% for < 9 years, 39.4% for 9-13 years and 25.1% for > 13 years; $p < 0.00001$). The same characteristics were also significantly associated with obesity alone and in multivariate analysis remained significantly associated with the outcomes of overweight/obese and obesity alone. **Conclusions:** These results confirm the findings of others that low education levels are associated with overweight and obesity, even after controlling for age and sex. This information underlines the importance of social determinants in health status and will be useful in developing targeted interventions at regional level.

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Measuring weight and height in adolescence: are self reported measure valid for BMI estimation?

The high prevalence of obesity among adolescents is a major public health issue in Western society (USDHHS, 2001; Hedley et al., 2004; Jolliffe, 2004; Mokdad et al., 2004). Prevalence information among different populations is a priority but at the same time the objective measurement of large samples is very costly. Surveys are a quicker and inexpensive solution, but the validity of self reported measurements needs to be assessed (Danubio et al., 2007; Mc Adams et al., 2007). The aim of this study is to assess on an Italian sample, the agreement between self-reported and objective measure of height and weight. A cluster sampling method (classroom-based) was used for the sampling according to the Health Behaviour in School-aged Children Survey (HBSC) International Study protocol (Currie et al., 2001). The 2006 sample of 6744 subjects is representative of 11, 13, 15 year old population from Veneto Region. In addition to the self-reported measure (SRM) of height and weight an objective measure (OM) for each subject was taken by trained health professionals. Each individual measurement was linked to the self-reported one. Lin's coefficient (1989, 2000) and Bland and Altman (1986) method were used to assess the agreement and showed a different patten for height SRM compared to weight SRM. 11 y.o. underestimate their height while 13 and 15 y.o. overestimate it. All age groups underestimate their weight. Although the underestimation and overestimation are limited for both measures, the BMI calculation could be affected. Great attention should be given to the age effect.

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Obesity and overweight

It is known that obesity causes an increase of the risk for some diseases, in particular cardiovascular pathologies and diabetes. Genetic or physiological factors interacting with behavioral aspects (sedentary life styles and bad habits alimentary, as consuming excessive amounts of sugars and fats) increase the risk of excess of weight and obesity. In Italy, the trend of obesity is growing although the levels in the adult population are not as high as the ones registered in United States and other European countries. However, it is urgent the realization of programs monitoring and contrasting obesity because of the strong impact of the phenomenon on the public health and use of health services. From the results of the Survey "Conditions of health and use of health services " carried out by Italian National Institute of Statistics in 2005, it is estimated that the majority of the adult population (18 year-old people and more) is in condition of normal weight (52,6%), more than a third it is in overweight (34,2%), 9,8% are obese and the remain (3,4%) are underweight. In particular obesity increases with the age, it is more diffused in the South of country and among the people of lower social status. Obesity is increasing: the obese adult people in Italy are about 4 million and 700 thousand, with an increase of 9% percent in comparison with five years ago. The findings of survey confirms the strong correlation between obesity and onset of cardiovascular diseases. Epidemiological studies highlight that the increase of the obesity in the last decade is more related to the reduction of the physical activity rather than to the increasing of the consumption of calories. From the results of the Survey it is estimated that about a quarter of the adult population is inactive, with strong variations for age; the quota is major among the people in excess of weight. The alimentary styles in our country are mainly influenced by the so-called "Mediterranean diet", with a predominant consumption of carbohydrates as pasta, bread and rice. In order to promote healthy styles of alimentation, in 2003, the Italian National Institute of Research for Nutrition and Foods spread guidelines for a Healthy Feeding. The findings of the survey "Aspects of the daily life" carried out by Italian National Institute of Statistics in 2005, let us monitoring some of the main aspects of these recommendations, in particular the daily consumption of fruit and vegetable (at least 5 portions a day). In Italy, the percentage of people who usually eat recommended quantity of fruit and vegetable is too low, mainly among the youngest.

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An Italian general practitioners network survey on obesity

Purpose: To evaluate obesity, 40 GPs were engaged to perform a screening on a sample of patients randomly selected from their lists. **Methods:** Weight and height were measured in 1044 men and 1046 women aged 35-75, without previous cardiovascular disease (CVD). Body mass index (BMI) was categorized in normal weight (BMI 18.5-24.9 kg/m²), overweight (25.0-29.9 kg/m²) and obese (BMI ≥ 30 kg/m²). Food frequency, physical activity, smoking and use of medication were investigated through a questionnaire; CVD risk was assessed using the Italian CUORE Project score. **Results:** Prevalence of overweight was 50% in men and 34% in women; prevalence of obesity was 23% in men and women. Age-adjusted correlation analysis showed that BMI was inversely correlated with consumption of pulses, fish, wholemeal food, vegetables, rotisserie food, chocolate and sweet, and directly correlated with meat. Women eat vegetables, wholemeal food and chocolate more frequently than do men, and men eat more fry food, meat and sugared drinks than do women. Age-adjusted correlation analysis showed that physical activity during leisure time was inversely correlated with BMI. CVD risk score in 10 years was for women 3% for normal weight women, 5% for overweight, 7% for obese; for men: 8%, 11%, 13% respectively. **Conclusions:** Involving GPs for a preventive strategy means that they are made aware of the low proportion of normal weight persons in the population and how overweight and obesity are inversely related to low-fat foods and physical activity. Encourage GPs to counsel on healthy lifestyle is an achievable goal.

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Responsible Serving of Alcohol in NSW Australia: Use of Surveillance Data to reduce alcohol related harm in the community

Whilst the profits from the sale of alcoholic products are enjoyed by the relatively few individuals who invest in these commercial ventures, the substantial social costs of the consumption are borne by consumers and their families and the rest of society. Actions aimed at engaging alcohol vendors in responsible serving of alcohol have not generally proven effective. Inspired by the need for intersectoral collaboration as described in the Ottawa Charter for Health Promotion, this paper describes the results of collaboration between the Police, Local Government and the Health sectors working together to address this issue in New South Wales (Australia). The presentation describes how delivery of strategic surveillance information using risk assessment technology on routine police attendance of incidents, together with data from regular CATI surveys of the population have been at the core of the capacity building exercise aimed at skilling a variety of Government Departments to reduce alcohol related harm. The presentation will provide details of changes in police activity as well as statistically significant gains over time in various geographical areas. Additional pressure is also brought to bear through strategic trend results of CATI surveys of the population regarding their experience of responsible serving of alcohol by the industry. Information will also be provided of the increasingly visible presence of government and regulatory authorities engaging with the alcohol industry, partly as a result of this work.

**Edouard Tursan d'Espaignet,
John Wiggers**

The alcohol use associated to the risks for the health in Friuli-Venezia-Giulia (Italy) - Results PASSI 2006

Introduction: Excessive alcohol use has numerous adverse health consequences. In the Friuli-Venezia-Giulia (FVG) region, which has a population of 1.3 million, approximately 6000 alcohol-related hospitalizations annually and 1500 deaths occur annually. **Methods:** We used data from PASSI 2006, a cross-sectional telephone survey conducted at local level. 1103 respondents in the region's 6 local health units (LHU). *Binge drinking* was defined as ≥ 6 drinks on ≥ 1 occasion in the past month, and *heavy drinking* as ≥ 3 drinks/day for men or ≥ 2 drinks/day for women during the past month. **Results:** The prevalence of binge drinking was 16% (range 12% in LHU1 to 18% in LHU4). Binge drinking was significantly higher in men (27%) than in women (5%; $p = 0,0000$) and highest among those 18-24 years (31%; $p = 0,0000$). Prevalence of heavy drinking was 6,1% (range 4,3% in LHU1 to 6,5% in LHU 4). A greater proportion of men than women (10,8% versus 1,8%; $p = 0,0000$) reported heavy drinking; among men, the highest rates (14,5%) were in those 50-69 years. During the past month, 26% of respondents reported they had driven after drinking, and 16% reported riding in a car or other vehicle driven by someone who had been drinking. **Conclusions:** In FVG, the prevalence of alcohol-related behaviors associated with an increased risk of alcohol-related traffic accidents and other adverse health consequences was high. Our data suggest that young men should be the principal target for binge drinking prevention strategies, while men, particularly those >50 years, for strategies to reduce heavy drinking.

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Use and abuse of alcohol among the young people

The aim of this work is to analyse the patterns of consumption of alcoholic drinks in Italy among the young population. Recently in Italy unhealthy habits of alcohol consumption are spreading (binge drinking, consumption between meals). Simple and multivariate data analysis were carried out on the youth of 11-24 years according to the results of the multipurpose survey on Italian households "Aspects on daily living". Data was collected by ISTAT in 2006. Preliminary analysis shows that in Italy about 50% of young has consumed alcohol at least once in the last year. Boys consumed alcohol more than girls (55,5% boys, 44,1% girls) even if in the last years the increase of use among girls is higher than among boys. Besides this, 6,3% of youth referred to consume alcohol every day, 8,8% drunk alcohol between meals at least once in a week and 10,2% got drunk at least once in the last year. A cluster analysis was performed and the young population was split into different groups according to the use of alcoholic drinks and others life styles (physical activity, obesity, smoking, entertainments). The results show that age is the main discriminant: in the groups of the youngest (11-15 years) the majority of people do not consume alcoholic drinks and do not have other unhealthy habits: they are not obese, don't smoke, are physically active; in the groups of the oldest (16-24 years), the majority consumes alcoholic drinks (even if with different patterns of use), often associated with other unhealthy habits: they are physically inactive, obese and smoke. It is only a question of time? The youngest people could potentially became alcohol consumers; this is the reason why it is really important to focus new politics on arresting these risky patterns of consumption of alcohol among young people.

Emanuela Bologna,
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Incidence and Mortality of Acute Myocardial Infarction in Tuscany before and after the Italian smoking ban

To describe trends of mortality and incidence for Acute Myocardial Infarction (AMI) in Tuscany before and after the Italian smoking ban (January 10, 2005). 2000-2005 AMI deaths recorded in Tuscan Mortality Register and 2000-2005 incident AMI cases in Tuscan AMI Register were selected. AMI incidence and mortality rate trends were analyzed using a Poisson model, adjusting for gender, age, and 2000-2004 temporal trend. After the introduction of the ban, a significant 19-percent decrease in AMI mortality for people aged 35-64 years was recorded (table 1). Considering the period Jan2000-June2005, a significant 27-percent decrease in mortality was recorded. Considering the period Jan2000-April2005, a significant 9% decrease in AMI incidence in men aged 30-64 years was recorded after the ban (table 1). A significant decrease in AMI incidence and mortality was recorded in the first 4-6 months after the introduction of the ban, in particular in men aged 30-64 years. This trend was similar to the trend of cigarettes sales in Tuscany, which decreased by 10.2% in Jan-Apr 2005, and by 5.2% in May-Dec 2005, in comparison to 2004.

Table 1. AMI Mortality and Incidence Relative Risks (RR), year 2005 versus 2000-2004, by age and gender.

		Mortality		Incidence		Incidence, Jan-Apr	
		RR	CI 95%	RR	CI 95%	RR	CI 95%
30-64	Men	0.83	0.68-1.02	0.97	0.92-1.02	0.91	0.83-0.99
	Women	0.72	0.46-1.11	0.97	0.87-1.08	1.09	0.91-1.30
	Total	0.81	0.68-0.97	0.97	0.92-1.01	0.94	0.87-1.02
65-84	Men	1.02	0.93-1.11	0.93	0.90-0.97	1.02	0.97-1.09
	Women	0.91	0.83-1.00	0.87	0.84-0.91	0.92	0.85-0.99
	Total	0.96	0.90-1.03	0.91	0.88-0.94	0.98	0.94-1.03

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Italy & Austria Before and After Study: second-hand smoke exposure in hospitality premises before and after two years from the introduction of the Italian smoking ban

Objective: To compare second-hand smoke (SHS) exposure in hospitality premises (HPs) in Italy and in Austria before and after two years from the introduction of the Italian smoking ban (January 10, 2005). **Methods:** 19 Austrian (Vienna) and 28 Italian (Florence, Belluno) HPs were sampled before and after two years from the Italian ban. Post-ban samples were also collected in 27 HPs in Turin, Milan, Naples. The SHS marker was vapour-phase nicotine, measured using passive samplers, following the method by Hammond et al. **Results:** We analyzed 262 samples from 74 HPs. In Vienna the medians of pre and post-ban nicotine concentrations were, respectively, 11.00 $\mu\text{g}/\text{m}^3$ (mean: 23.58; IQR: 2.53-30.38) and 15.76 $\mu\text{g}/\text{m}^3$ (mean: 17.73; IQR: 2.22-31.93), with no significance differences. In Florence and Belluno bars, restaurants, and discos/pubs, nicotine concentration significantly decreased, in median, from 19.02 to 0.25 $\mu\text{g}/\text{m}^3$; from 2.03 to 0.10 $\mu\text{g}/\text{m}^3$; from 35.16 to 0.01 $\mu\text{g}/\text{m}^3$, respectively; overall, median decreased significantly ($p < 0.001$) from 8.86 (mean: 45.25; IQR: 2.41-45.07) to 0.01 $\mu\text{g}/\text{m}^3$ (mean: 1.32; IQR: 0.01-0.41). Post-ban measurements in Naples, Turin, and Milan (mean: 2.79; median: 0.01 $\mu\text{g}/\text{m}^3$; IQR: 0.01-0.16), confirmed post-ban measurements in Florence and Belluno. **Conclusions:** This study showed a drop of more than 95% in SHS exposure in a sample of 28 HPs located in 2 Italian towns after 2 years from the introduction of the ban, confirmed by post-ban measurements collected in other 27 HPs from 3 different Italian towns, whereas in Vienna, where no anti-smoking law entered into force up to now, SHS exposure levels were non-significantly different from those recorded 2 years before.

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Inequalities in smoking

This paper analyses Italian attitude towards smoking in eight consecutive birth cohorts, in order to address the implications for tobacco control policy. The analysis is based on data from the “Health conditions and resort to sanitary services” survey carried out in Italy from July 1999 to June 2000 by the National Institute of Statistics (ISTAT 2001). Data are analysed according to gender and educational level. Across subsequent generation smoking prevalence shows a general downward trend, with a more marked decrease starting from 1975-1980; a positive association between education level and smoking prevalence decline is observed for both genders. The incidence of early smoking cessation increases in both genders and education levels, but with different extent: the gap between the two genders and, to a greater extent, between the two education levels increases across successive birth cohorts, becoming particularly relevant in the youngest cohorts. Overall results highlight that in Italy the decline in smoking habit is closely associated with social advantage and to a lesser extent with gender. These differences could reflect the effects of tobacco control strategies: in Italy until 1990 intervention were sporadic, involving only school and health professions. Only later campaigns became more community oriented, including media and mass events. The National Health Services have ignored this inequalities until now: education differences are not evaluated, and gender differences although evaluated are not taken into account in NHP. A comprehensive tobacco policy, aiming to narrow socio-economic inequalities in smoking should be developed in Italy. National and regional health plans should include goals and objectives specifically oriented to reduce gaps in smoking, and actions should be specifically tailored for deprived groups.

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Youth smoking in Lombardy Region

A periodical surveillance about smoking in youth of the Lombardy Region (Italy) began in 2004 within the WHO-CINDI program in Italy. The survey was done at school by a self-administered questionnaire in a representative sample of 11,470 students (6050 males and 5400 females) aged 13, 15 and 18 years. The prevalence of smokers among 13 years old was 6.6% in boys and 5.4% in girls. At 15 years of age it reached 26.9% in males and 26.3% in females, while at 18 years 33.9% in males and 32.7% in females respectively. The mean number of cigarettes/week was 9₋+9.12 in the youngest cohort and 2.5₋+38 in the oldest one. Smokers stated a low progress at school ($p < 0.001$) and to receive higher weekly tips from parents ($p < 0.001$) than no-smokers. Smoking prevalence among family members and friends were highest ($p < 0.001$) in students who smoke; these ones declared that they started smoking for the pleasure, wellbeing sensation and relax coming from the cigarette, not for imitation. The knowledge of tobacco dangers to health was not different in smokers and in non-smokers. Females replied more exactly than males to the questions concerning health damages due to tobacco. The survey will be repeated in 2009 at regional level.

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Survey on smoking and physical activity in Nursing students

The study reports the results of a survey about smoking and physical activity done by self-administered questionnaire in nursing students at Pavia University. Responders were 393 (80% M= 132, F= 261, mean age 24.66 ± 5.64). 45% of the students (51.5% males and 41.8% females) were smokers while ex smokers were 9.7%. Cigarettes consumption was 12.33 cigarettes/day in males and 10.49 cigarettes/day in females; males began smoking at 16 years of age, while females began at 17 years. 66.5% of smokers stated they would like to quit and the most of them were pressed in this decision by family (49.7%) and friends (49.2%). The prevalence of self-assessed overweight was 31.1% in males and 11.6% in females. Several students had a wrong perception of their weight: 34.1% of males and 6.5% of females thought to be overweight even if they had normal BMI. 48.5% of males and 24.9% of females played a sport currently. Males who practiced heavy physical activity (1-4 hours/week) were more than females (25% vs 18.8%). On the contrary females practiced light physical activity more than males (18% vs 12.9%). The results will be used to project interventions aimed to quit smoking and to lose weight, if necessary.

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Effects of a Comprehensive Law Banning Smoking in Enclosed Spaces in the Province of Trento, Italy 2005-2006

Introduction: In January 2005, Italy banned smoking in all enclosed spaces open to the public, including offices, bars, restaurants, clubs, and discos. To examine effects of the law at local level in the Province of Trento, we used data from various sources including Studio PASSI 2005. **Methods:** Data sources included cigarette sales-data from the Trentino-Alto Adige region (which includes a second province, Bolzano), data from Studio PASSI 2005, a cross-sectional survey conducted at local level as a pilot study with the objective of testing methods and logistics of data collection on health behaviours, and data from a local 2006 cross sectional survey on smoking which included the smoking section of the PASSI questionnaire. **Results:** Compared to 2004, cigarette sales in Trentino-Alto Adige declined 8.8% in 2005, the equivalent of 5.6 million packs of cigarettes; the national average reduction was -5.4%. Studio PASSI 2005 demonstrated that 31% of smokers in Trento reported smoking less and 21% had tried to quit smoking as a result of the law. In the 2006 survey, 32% reported smoking less, 18% had tried to quit, and 25% of those who quit after the ban thought the law had influenced their decision. **Conclusions:** The smoking ban was effective and resulted in a reduction of cigarette consumption in Trentino-Alto Adige. The transformation of PASSI in the current surveillance system will permit ongoing monitoring of smoking behaviour at local level.

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Factors influencing smoking cessation in Italy

The aim of this work is to identify the main factors which might influence smoking cessation in order to support tobacco-control policies. Data source on tobacco consumption among the Italian population aged 14 years or older is the survey "Health conditions and access to health services 2004-2005" whose main aims are to provide a measure of perceived health, chronic conditions, disability, use of health services and health related behaviours. In Italy among the population aged 14 years and over, the smokers are 21,7%, those who have never smoked are 49,1% and smokers who gave up smoking are 29,2%. The percentage of former smokers is increasing in the last years and it is higher among men (26,4%) than women (14,5%). Among men the rate of former smokers increases when the age raises: from the 5,5% among young people (14-24 years old) to 58,0% among elderly people (75 years and over). Women aged 45 years and over with higher level of education give up smoking more frequently than those of the same age with lower level of education. In average people give up smoking at 40 years (38 years for women and 41,4 for men). They give up smoking after 22 years of smoking habit (18,3 for women and 24 for men). The analysis is based both on smokers who tried to give up smoking and smokers who succeeded in the attempt during the 12 months before the interview. Logistic regression was performed to predict the smoking cessation probability based on a set of categorical variables: age group, sex, level of education, perceived level of household income, number of years of exposure to tobacco, number of cigarettes smoked a day, method used to abandon the habit, presence of severe diseases. The estimated odds ratio let us rank the relative importance of independent variables and assess interaction effects. The features which affect more strongly the smoking cessation are the higher social status (higher instruction and more means), the smaller exposure to tobacco in number of years and the help of a doctor in the attempt to quit. Furthermore, the two opposite groups of the occasional smokers (not smoking every day) and the heavy smokers (smoking 20+ cigarettes a day) are those with the higher probability to succeed in the attempt to quit smoking. It remains a strong disadvantage for people with a lower socio-economic status, both in terms of smoking rate and in term of attempts and success in smoking cessation.

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