Cancon Policy Brief 4

This is a summary of Cancon Policy paper #4 *An Impact Evaluation System to Assess Prevention Outcomes.*
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An impact evaluation system to assess prevention outcomes

The fourth Cancon policy paper deals with the outcomes of efforts made concerning diet and nutrition, physical activity, alcohol consumption and tobacco control and cancer prevention, and the team at the University La Sapienza-Rome was led by Professor **Giuseppe La Torre**. Other participants were **Alice Mannocci**, **Rosella Saulle**, **Daniele Mipatrini**, **Alessandra Sinopoli**, and **Valeria D'Egidio**.

The policy paper deals with the outcomes of prevention, identifying:
- What policies and interventions are currently implemented for prevention of cancer?
- Which indicators are used to measure the effectiveness of interventions in scientific research?
- Which indicators are present in the information systems for surveillance at the European Level?
- Is it possible to compare scientific and surveillance indicators?

Evidence is drawn from meta-analyses and literature reviews and encompass an evaluation of interventions together with recommendations for policy, and a contextual overview of national guidelines.

1. Diet and nutrition

- Effectiveness of interventions to promote healthy diet especially to increase in fruit and vegetable consumption, and decrease total fat intake and as a consequence in serum cholesterol.
- Primary school diet and physical activity policies impact reduction of body weight
- Primary school interventions show effectiveness in improving consumption of fruit and vegetable
- Social media interventions for diet and exercise behaviours show decrease in dietary fat consumption
- Tailored multi-component preschool-based interventions for increasing fruit and vegetable consumption in children aged 5 years and under report an increase in mean child consumption of fruit and failed to significantly increase child consumption of vegetables.

Policy recommendations

When a decision on the implementation of a policy / intervention has been made Member States must consider at least three dimensions for monitoring the impact of policy / intervention:
- Changing dietary health - increase of healthy food consumption especially fruit and vegetable and decrease in total fat intake, sodium and calories;
- Changing body weight and prevalence of overweight and obesity (monitoring BMI);
- Serum cholesterol reduction, blood glucose, blood pressure as well as the other dietary related health status and nutritional and metabolic diseases

2. Physical activity

Evidence

The results from the systematic review of the literature and meta-analysis regarding the following intervention/policies show that:
- A socio-ecological model for environmental urban facilities increases the level of physical activity and improves public health outcomes. This model of health promotion considers the complex

interplay between individual, relationship, community, and societal factors.
- Multiple-component physical activity programs encourage exercise participation, self-efficacy, and adherence over time.
- School-based physical education and after school programmes improve blood pressure, lipid profile, BMI, school achievement, and MPVA.
- In childcare centres the education and training of staff is useful to promote physical activity.
- Interactive computer-based interventions are effective for weight loss and weight maintenance.
- Group counselling increases self-reported physical activity. Individual counselling improves lipid profile, BMI, and self-reported physical activity.
- Community walking groups increase the time and frequency of physical.
- Worksite health promotion improves lipid profiles, BMI, and decreases job stress and absenteeism.

Effective interventions:
- Environment urban facilities realized on a socio-ecological approach;
- School-based physical education;
- One to one/group counselling;
- Worksite health promotion.

Policy recommendations

Scientific evidence shows that it is possible to realize a set of indicators on physical activity and create a database that enables the integration and comparability of the data collected.
- All countries should adopt the indicators chosen in order to unify goals and monitoring activities.
- In addition to choosing effective indicators based on scientific evidence, it is necessary that states base recommendations on those of the WHO and report concrete objectives.
- The indicators highlighted in the literature are in line with those reported by EUROSTAT, Health for All and ECHI. This is an important factor that facilitates the implementation of policies.
- An indicator is optimal if it can be measured in the living environment, and in school, after school, worksite, and urban environments: BMI, level of physical activity, total energy expenditure (kcal/week), waist circumference, and time spent in moderate to vigorous physical activity (MPVA).

3. Alcohol

Evidence

The results from the review of systematic reviews and meta-analyses regarding the following intervention/policies show that:
- Brief interventions are effective in reducing alcohol consumption, alcohol related injuries, alcohol related diseases and binge drinking, and the WHO supports their implementation.
- School and community-based actions may be effective in limiting alcohol consumption, in particular: the provision of social norm information for alcohol misuse in university and college students is effective in reducing binge drinking. School-based preventive interventions in adolescents reduces the prevalence of students' drinking alcohol and the frequency and quantity of alcohol consumption. E-health interventions may represent an important innovative option.
- Enhanced enforcement of BAC seems to be effective in reducing blood alcohol levels and road accidents.
- Limiting the hours of alcohol availability and the density of alcohol outlets seems to reduce alcohol consumption, sales and social violence in the areas of restriction.
- An increase in the minimum age of sale reduces alcohol consumption and alcohol-related injuries.
- Restricting or banning alcohol advertising is effective in reducing alcohol consumption in adults and adolescents. Forbidding sponsorship of social and sporting events seems to reduce alcohol consumption.
- Increasing the price of alcohol seems to be effective in reducing alcohol consumption, production, the number of retail outlets, alcohol-related diseases, dependence and abuse.

- The main actions that can be undertaken are: mass media campaigns to inform about health risks, increasing internal and cross-border controls, and abolishing the tax exemption for denatured alcohol.

Policy recommendations

The evidence shows that the interventions/policies listed above are of proven effectiveness, and therefore the Member States are recommended to implement them. Member States must consider at least the following indicators for monitoring the impact of any particular policy / intervention and should be able to monitor these indicators yearly:
- Alcohol consumption by gender and age;
- Prevalence of high risk drinkers;
- Alcohol related injuries;
- Prevalence of alcohol related diseases;
- Mortality for alcohol related diseases.

The above indicators should be harmonized among EU countries and included in international monitoring systems (EUROSTAT, GISAH). If the suggested indicators cannot be monitored annually at the national level, we recommend performing an observational study after the policy's implementation to assess the policy effectiveness.

4. Tobacco control

Evidence:
- Smoke-free workplaces represents a cost-effective approach
- There are mixed conclusions concerning price and tax measures give positive results in the reduction of the prevalence, even if of moderate impact
- The health warning on tobacco product and the pictorial warnings are effective in discouraging to start and smoke.
- Mass media campaigns cannot be easily monitored as they are mostly guided by other measures, such as tax increases.
- Interventions of proven efficacy/effectiveness are: those at educational institutions; counselling, telephone/mobile counselling, online counselling, group-delivered behavioural interventions in achieving long-term smoking cessation, incentives, physician advice. Expert systems, tailored self-help materials and individual counselling, appear to be as effective in a stage-based intervention as they are in a non-stage-based form.

Policy recommendations

The evidence shows that the interventions/policies listed above are of proven efficacy/effectiveness, and therefore the Member States are recommended to implement them in the context of the following indicators, where Member States must consider at least three dimensions for monitoring the impact of any particular policy / intervention
- Tobacco smoking prevalence
- Quit rate
- Initiation rate.
- First use of tobacco (for adolescents)

If these indicators cannot be annually monitored, consideration should be given to revising the indicators (EUROSTAT, Health for All) for the best fit between a policy/intervention and monitoring.

In the meantime, if these indicators cannot be annually monitored, we recommend performing an observational study after the implementation of the policy at the national level.