



HEAL Meeting report

Cancer Prevention and the Environment: Examples and opportunities for national and EU policy makers

The Health and Environment Alliance (HEAL) held the meeting on Tuesday, 2 December 2008 at its Brussels office. It provided an opportunity to share examples, firstly, of cancer **prevention strategies** that involve reducing environmental exposures and, secondly, of **opportunities** for cancer prevention through European Union (EU) environmental health **policies**. It marked the beginning of an informal European network on cancer prevention related to environmental factors. The term 'environmental factors' is often used differently - here the discussion pertained to '**involuntary**' exposures such as those in the work place, from contaminants in food, air, water and soil, and chemicals in consumer products. Furthermore, in this workshop, the focus was on increasing **incidence** of cancer.

Below is a synopsis of the discussions and presentations arranged in the order of i) context; ii) strategies; iii) policy and iv) other opportunities; v) constraints; vi) good examples and perspectives from EU countries. Finally, some brief words of conclusion and next steps are given.

Context

Over the last 50 years, the incidence of cancer has increased rapidly. For example, the number of cases of breast cancer in France increased by an astronomical 97% between 1980 and 2000 (InVS). In Europe as a whole, cancer incidence in children is increasing steadily each year (IARC). The upward trend for some cancers is partly explained by better screening and an aging population.

However, the officially recognised risk factors for cancer, including age, genetics, smoking, lack of exercise and so on, are unable to account for the rise in incidence for other cancers. Polls show that the public is concerned that the environment may be playing a role, and many respondents consider that the EU is not doing enough to address this aspect in prevention, education and policy¹.

The European Commission has recently released the European Code Against Cancer, a guide to lifestyle choices that can reduce one's risk of cancer². It represents an important step forward. However, primary prevention of environmental exposures and broader leadership on national-level cancer prevention and control policies are still largely absent. The EU is in a unique position to address the environmental and occupational exposures related to cancer risk as almost all national environmental legislation stems from EU laws.

In 2008, under the Slovenian EU Presidency's leadership on combating cancer, both the Council and the European Parliament adopted resolutions calling on the European Commission to set up a Task Force on Cancer³. It should address "good practice in access, treatment and prevention strategies". In addition, the Parliament resolution and Council conclusions included a specific mention to "reducing exposure to environmental contaminants" as part of a cancer prevention strategy. This relates to the EU chemicals policy, known as REACH (Registration, Evaluation, Authorisation and restriction of Chemicals), and the new EU pesticides legislation and implementation.

The meeting also aimed to draw on experiences both within and beyond Europe. For example, North American countries are considering how addressing environmental factors can help reduce the overall burden of cancer. The USA President's Panel on Cancer has held a series of four expert hearings on Cancer and the Environment⁴. The Canadian Cancer Society, a mainstream charity, is already working on environmental issues within primary prevention. It has one of the most useful and informative websites, which demonstrates what prevention approaches would mean for governments and individuals⁵.

Meeting objectives

- To identify and share examples of cancer prevention strategies that involve reducing environmental exposures
- To highlight public health policy opportunities for cancer prevention through EU environmental health policies
- To create an informal network to exchange information and policy opportunities around cancer prevention related to environmental factors

Strategies

EU: European Trade Union Institute (ETUI) promoting substitution at work. ETUI wants to see the Carcinogens Directive strengthened, properly implemented and not undercut by REACH. Under that Directive, the substitution principle is mandatory. Binding occupational exposure limit values on a few chemicals and agents (benzene, hardwood dust, vinyl chloride monomer) have been established. In REACH, substitution is not mandatory for all carcinogens, mutagens and reproductive toxics. ETUI is promoting a global ban on asbestos and opposing the last EU exemption for asbestos use. Carex, the database on carcinogen exposures, developed by the "Europe Against Cancer" programme estimates that 32 million workers in the EU - 15-23% on average - are exposed to carcinogens at work.

Promoting mapping and registries, such as CIRCE project (by the French Institute of industrial environment and risks Ineris) that consolidates outdoor (soil contamination, air pollution, pesticide use etc), indoor and occupational exposures in overlapping maps that are then compared with "health risk" maps and cancer maps to create an aggregated database for exposures and risks. The disadvantages of the CIRCE methodology include insensitivity to social inequalities and poor data for indoor elements.

US: Building consensus among scientists and health groups on environmental causes of cancer. The Cancer Consensus Statement of the Collaborative on Health and the Environment (CHE) and the President's Cancer Council that will report to President Obama. The CHE consensus process involves identifying individual health professionals, especially oncologists, scientists and mainstream cancer institutes, to bring them together in a "neutral place" for a balanced discussion, and record the agreed knowledge, and build consensus on how to prevent environmentally-related cancers. The President's Cancer Panel will present findings in 2009 from four hearings on the contribution of environmental exposures to cancer causation, and strategies to reduce them.

Canada: Promoting bans on the cosmetic use of pesticides (lawns, gardens and parks) as a precautionary approach to (potentially) carcinogenic exposures as a precautionary part of a wider cancer eradication strategy. The Canadian Cancer Society has endorsed the precautionary and the community right to know principles. Its November 2008 conference entitled "Exploring the Connection – A State of the Science Conference on Pesticides and Cancer" involved health professionals and other stakeholders, aimed at building community engagement and raised questions about the non-cosmetic use of pesticides⁶. Two Canadian provinces have banned the sale and use of pesticides for cosmetic purposes.

Policy opportunities

EU institutions representatives and HEAL staff gave presentations on the EU and WHO policy frameworks for cancer prevention with respect to environmental factors.

Nick Fahey, DG Health and Consumer Affairs, European Commission

EU Health Strategy / work on Health Determinants: Cancer prevention can become a mainstream part of the EU's work because the EU has a defined role in addressing the wider causes of ill-health (determinants) and promoting preventive behaviours related to environment. The European Commission is facing the prospect of a shrinking workforce and the long-term participation of workers in the workforce is therefore of growing importance to maintain future productivity. At the same time, the current HIV experience in Europe demonstrates the need for constant and ongoing risk information to the public. The Commission will not develop a Cancer Action Plan. Its strategy is to encourage the implementation of national health plans and support prevention work under the EU Health Strategy (2008-2013 Programme) through a **partnership** with physicians, nurses, academics, patients and other stakeholders⁷. They are especially looking for partners who have high public credibility, such as health professionals and NGOs, and effective arguments.

Dr Caroline Lucas, Member of European Parliament (MEP), United Kingdom

European Parliament on Cancer Prevention: Through its various positions, the European Parliament advocates the mainstreaming of cancer prevention in the EU's work. The Members, as represented by Dr Caroline Lucas, have recognised the need for a paradigm shift to give occupational, environmental and lifestyle causes an equal footing such that it reflects the combination effects of different exposures. It would thereby sufficiently recognise environmental and occupational exposures to carcinogens and other relevant chemicals, such as Endocrine Disruptors, and other environmental factors such as electro-magnetic fields and nano-sized chemicals.

- The European Parliament **Resolution on Combating Cancer** in an Enlarged Europe, April 2008, mentions prevention many times, covering occupational and other exposures, and well- recognised and newly emerging environmental factors. It also recognises that cancer is caused by multiple factors in multiple stages.
- The European Parliament resolution of September 2008 on the **Mid-term Review** of the European Environment and Health Action Plan (2004-2010) recognised "the increasing scientific evidence that **certain cancers, such as cancer of the bladder, bone cancer, lung cancer, skin cancer, breast cancer** and others are caused not only by the effects of chemical substances, radiation and airborne particles but also by other environmental factors"⁸.
- The **Impact Assessment** commissioned by the European Parliament on recent pesticides legislation estimates that one per cent of cancers diagnosed each year in Europe may be directly associated with **exposure to pesticides**⁹.

EU Commission Initiative on cancer: When terms of reference for prevention are being developed, the case should be made for strengthening chemical legislation (REACH, Endocrine Disruptors Strategy, pesticides) to reduce environmental exposures drawing on existing EU Parliamentary and Council calls for environment-related cancer prevention.

Dr Irena Belohorská, Member of European Parliament (MEP), Slovakia

National opportunities for cancer prevention - the case of Slovakia: Slovakia's cancer rates in relation to most other EU countries are not good, and Slovakia also has much higher mortality rates for certain cancers than western European countries. Efforts to produce a national action plan are encountering barriers with insurance companies, and resistance from oncologists. At the same time, Slovakia has difficulties in getting individuals to take action in detection (e.g. pap smears). In Eastern Slovakia, with highest rates of exposure to chemicals, there is an increase in all cancers.

Lisette van Vliet, Health and Environment Alliance (HEAL)

World Health Organization processes and initiatives: The World Health Organization says one in three cancers can be prevented. Cancer prevention is tackled in a variety of ways. There is a European Strategy for Prevention and Control of non-communicable diseases (2004); National Cancer Control Guidelines (2002); and National Control Strategies in Europe (2004)¹⁰. They emphasize the cost-effectiveness of environmental and occupational prevention, the importance of redesign or substitution of practices, products and chemicals; redressing the proportion of emphasis between prevention and cure; and legislation to reduce exposures, particularly in occupational settings. The National European Strategy also promotes the prohibition of dumping and of the importing of hazardous chemicals.

World Health Organization's 'Environment and Health Action Plan Europe' - this process involves National plans, and specific plans to protect children's environmental health (CEHAPE). The founding CEHAPE document refers to the increasing incidence of tumours in young people and its fourth '**regional priority goal**' aims for chemical-free environments to reduce diseases including cancer from exposure to hazardous chemicals during pregnancy, childhood and adolescence¹¹.

Other opportunities

Some new avenues for cancer prevention are being sought and may open up. Cancer charities are starting to look for new avenues to make progress on cancer prevention, and if the Framework Convention on Tobacco Control gathers momentum at international level, there will be space for cancer groups to move to other issues.

The public is concerned that cancer has environmental causes, and increasingly cancer charities are interested in providing information on this association (i.e. UK, Belgium, Canada).

Constraints

Cancer charities:

- Easily accessible information that shows policies in this area would be practical and effective is not available to cancer societies. They consider other policy areas offer bigger public health impact: tobacco control and sun safety campaigns; some have shifted to obesity.

- Addressing issues related to chemicals may lead to clashes with governments, where government positions on regulatory action are not strong enough.

Lack of visibility:

- Information and scandals related to environmental exposure, such as exposure to asbestos, are often kept well hidden.
- The workers most exposed (unskilled labour) tend to be less vocal than those least exposed (senior staff).
- The occupational disability compensation system under-recognises occupational exposures: Only 10% of cancers associated with exposure at work are compensated.
- Famous but dated work by Doll and Peto remains influential on the recognition of environmental and occupational links to cancer (they argued that 4% of all cancers could be regarded as work-related and 2% due to pollution). These numbers do not take into account the emerging scientific evidence on the role of early life, low level and multiple and cumulative chemical exposures.

Good examples and perspectives from EU Member Countries

Denmark: Pregnant mothers are given the government-produced fact sheet "Good chemistry for pregnant and nursing mothers", with versions available in languages of major immigrant groups (Turkish, Arabic)¹²

Belgium: The Belgian Cancer Society has a 10 year old book on the Environment and Cancer, and extensive website information in French and Dutch on environmental factors¹³. They plan to publish a new booklet on the subject, with scientific updates. The 2008-2010 national cancer action plan foresees a total budget of 380 million Euro to implement the 32 actions although none of them directly tackle environmental factors. However, a regional research initiative focuses on childhood cancer and the environment.

Netherlands: Translation of a book has led to the establishment of a network of female doctors working with women's organisations on the toxics issue. A survey in Holland showed that the public defined the top two causes of cancer as stress and the environment.

France: The National Institute for Health and Medical Research recently published a report that recognised that changes in the environment could be partially responsible for the increase in certain cancers, with factors including pesticides, dioxins, PCBs, certain heavy metals, and automobile traffic exhaust particulates, etc.

Italy: The National cancer plan 2006-2008 (the next one 2008-2010 is being finalised) chapter on primary prevention focuses on reducing exposure – to tobacco smoke, alcohol and environmental factors such as:

- occupational exposures, including some priority actions to reduce risk and exposure in the workplace
- everyday life exposures through air pollution especially in urban areas; soil pollution; pesticides; dioxin; electro-magnetic fields; asbestos and indoor pollution. Priority actions include increasing interactions between the environment and health sector and consultation with NGOs and public interest groups.

Italy is also developing a database on where those with cancer are living to help map the connections with environmental causes.

UK: There exists a database on cancers and landfills, a petition has been started by women's groups to Prime Minister to ask cancer charities to consider environmental factors. **Scotland:** A women's NGO has submitted a petition to ask the Scottish Government to investigate the role of environmental and occupational exposures to toxic substances in cancer and other serious diseases.

Slovakia: Aeroplane spraying of pesticides in the northern region is now done early in the mornings and accompanied by warnings in regional media. But information and education are not enough. Poorer people cannot buy organic food, for example.

Spain: The national cancer plan refers to environmental contaminants through food (e.g. dioxins) and exposures to Endocrine Disruptors, and increasing incidence of tumours in young people. The plan also stresses the need for the precautionary principle, and the need for legislative action to control the avoidable factors.

Malta: The national plan has strategies to reduce the incidence of common cancers but does not mention environmental factors. The plan includes mention of research into causes of cancer. Malta is experiencing increases in breast and lung cancer; and correlations between cancer cases and areas of high vehicle exhaust have been found.

Conclusion & Next Steps

There are several direct and indirect opportunities to advance the recognition of environmental factors which play a role in cancer etiology and incidence rates. Chances to advance the 'environmental prevention of cancer' agenda are arising in the EU. While conditions, public awareness, governmental support and stakeholder views still vary enormously across Member States, there is sufficient interest and willingness, and existing good examples, as found in this meeting, which can be consolidated into momentum and collaborative work for pan-European change.

HEAL will create an informal email distribution list to exchange information on environmental cancer prevention work. Please contact Lisette van Vliet at lisette@env-health.org if you wish to be on this list. If you attended the workshop, your name will be automatically on the list unless you indicate otherwise.

HEAL will monitor the development of and if possible participate in the upcoming EU Commission Initiative on Cancer, and would like to cooperate/coordinate with other interested stakeholders.

HEAL will coordinate work towards an eventual EU 'Cancer and the Environment' consensus statement, which also recognises the implications of environmental prevention measures on non European countries. The consensus process can learn from and complement work being done in North America by CHE and the Canadian Cancer Society.

¹ Eurobarometer: Attitudes of European citizens towards the environment: http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

² See www.cancercode.org.

³ European Parliament Resolution "Combating cancer in the enlarged European Union"
<http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P6-TA-2008-0121&language=EN>

European Council "Conclusions on reducing the burden of cancer"
http://www.eu2008.si/en/News_and_Documents/Council_Conclusions/June/0609_EPSCO-cancer.pdf

⁴ See <http://www.healthandenvironment.org/articles/doc/4199>

⁵ See www.cancer.ca

⁶ See http://convio.cancer.ca/site/PageServer?pagename=PEST_CAN_home&s_locale=en_CA

⁷ Together for Health: A Strategic Approach for the EU 2008-2013
http://ec.europa.eu/health/ph_overview/Documents/strategy_wp_en.pdf The EU Commission document on the Partnership has not yet been published.

⁸ European Parliament resolution of 4 September 2008 on the mid-term review of the European Environment and Health Action Plan 2004-2010
<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2008-0410+0+DOC+XML+V0//EN>

⁹ See <http://www.europarl.europa.eu/activities/committees/studies/download.do?file=22471>

¹⁰ National Cancer Control Programs: Policies and Managerial Guidelines – 2nd Ed. World Health Organization, 2002. [English]
www.who.int > programs & projects > cancer > National cancer control programmes

Gaining health: The European Strategy for the Prevention and Control of Noncommunicable Diseases. World Health Organization Regional Office for Europe, 2006. www.euro.who.int > health topics > cancer > publications
Strategies to improve and strengthen cancer control programs in Europe (WHO report on consultation). World Health Organization, 2004. [English] http://whqlibdoc.who.int/hq/2004/WHO_CHP_CPM_PCC_04.1.pdf

¹¹ See http://www.euro.who.int/childhealthenv/policy/20020724_2

¹² http://www.mst.dk/English/Chemicals/Consumer_Products/Good_Chemistry_to_pregnant_and_nursing_mothers.htm

¹³ <http://www.cancer.be/index.php/environnement/environnement-et-cancer/id-menu-3917.html>

A bibliography of materials was also distributed in the Meeting Pack, and can be obtained from Lisette van Vliet.

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