CASE STUDY

Assessment of health risks of chemicals

Estonia

TRAINING ON ASSESSMENT OF HEALTH RISKS FROM COMBINED EXPOSURE TO MULTIPLE CHEMICALS IN INDOOR AIR IN PUBLIC SETTINGS FOR CHILDREN

Implementing institution: Estonian Health Board

Overview

A training on the WHO IAQRiskCalculator software was organized to promote the transition from assessment of risks from individual chemicals to a more realistic evaluation of risks from combined exposure to multiple chemicals in indoor air in public settings for children in Estonia.

Objective

The project's objective was to create a pool of national experts with experience in the assessment of combined-exposure risks.

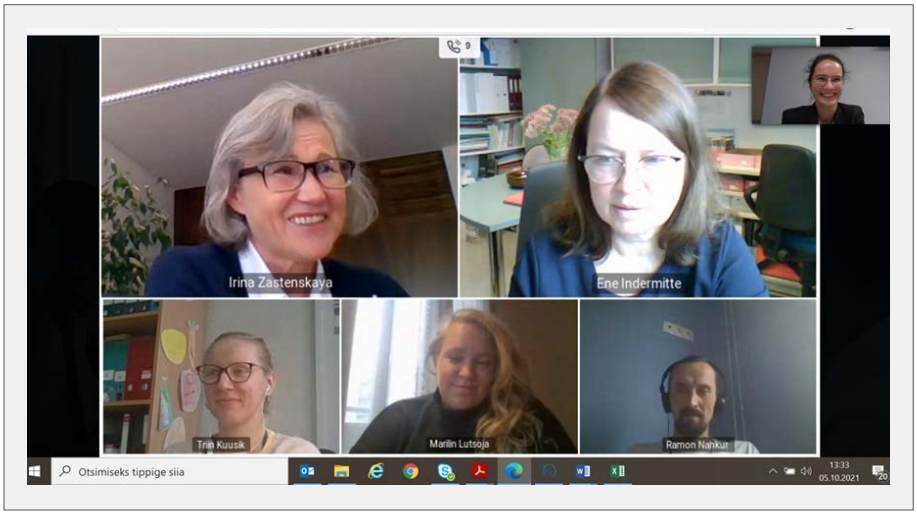
Activities

- Introducing the WHO IAQRiskCalculator software and a package of accompanying documents
- Piloting the selection of sampling sites and risk assessment using the software
- Gathering advice for WHO on ways to improve the software, if needed
- Promoting combined-exposure risk assessment

Engagement of partners/stakeholders

The training was organized in collaboration with the Estonian Health Board's Environmental Health Department and the WHO Regional Office for Europe (through the WHO European Centre for Environment and Health and the WHO Country Office in Estonia).

The main partners were public health professionals from central and local institutions: the Estonian Health Board, Tartu University, the Ministry of Economic Affairs and Communications, the Ministry of Social Affairs, and the Consumer Protection and Technical Regulatory Authority.



World Health Organization
European Region

Outcomes

- Participants highly appreciated both the software and the training, and gave valuable feedback on the user experience and recommendations for updates.
- The pool of experts with experience in combined-exposure risk assessment also contributed suggestions for improving the tool, which can be used by national public health specialists for combined-exposure risk assessment.
- Overall knowledge on combined-exposure risk assessment was increased.
- The training contributed to the implementation of national policies in the field of indoor environmental risk assessment in public settings for children, including schools and kindergartens.

Key achievements

- The virtual training engaged 20 Estonian public health professionals who welcomed the opportunity to learn about the IAQRiskCalculator. They were able to use the software during the training and asked actively about possibilities for incorporating it in their work.
- Participants' feedback and recommendations for improving the software were compiled in a report and given to WHO for future iterations of the IAQRiskCalculator.
- Public health specialists in Estonia can now use the IAQRiskCalculator for combined-exposure risk assessment in indoor air in public settings for children.

Lessons learned

- As indoor air is one of the main risk factors for health in indoor environments around the world, the IAQRiskCalculator is a useful screening tool for assessing these risks more realistically.
- The IAQRiskCalculator could be used by public health and related field specialists in risk assessment processes in public settings for children (as well as other buildings) to get more reliable results that can contribute to risk-management decision-making.

Key messages and steps forward

- Children's health is a high priority in Estonia. The IAQRiskCalculator can help public health specialists to comfortably, quickly and reliably assess health risks from combined exposure to multiple chemicals in indoor air in public settings for children.
- Next steps to improve the assessment of health risks from chemicals will be to:
  - integrate the use of the IAQRiskCalculator in the national environmental health risk-assessment process in schools and kindergartens;
  - evaluate how the risks in indoor air in public settings for children are changing;
  - strengthen policies to improve indoor air quality in public settings for children in collaboration with educational authorities; and
  - raise the awareness of local governments of the importance of indoor air quality in public settings for children and other indoor environments, and the possibilities to assess and improve it.

Acknowledgements

The WHO European Centre for Environment and Health kindly acknowledge national project coordinator Ms Kristina Aidla and the Estonian Health Board for organizational support of the project; and the national experts for their interest in and contribution to the training.

The project was implemented with financial support from the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection.

WHO European Centre for Environment and Health
Platz der Vereinten Nationen 1, 53113 Bonn, Germany

Contact person:
Dr Irina Zastenskaya, Technical Officer for Chemical Safety