



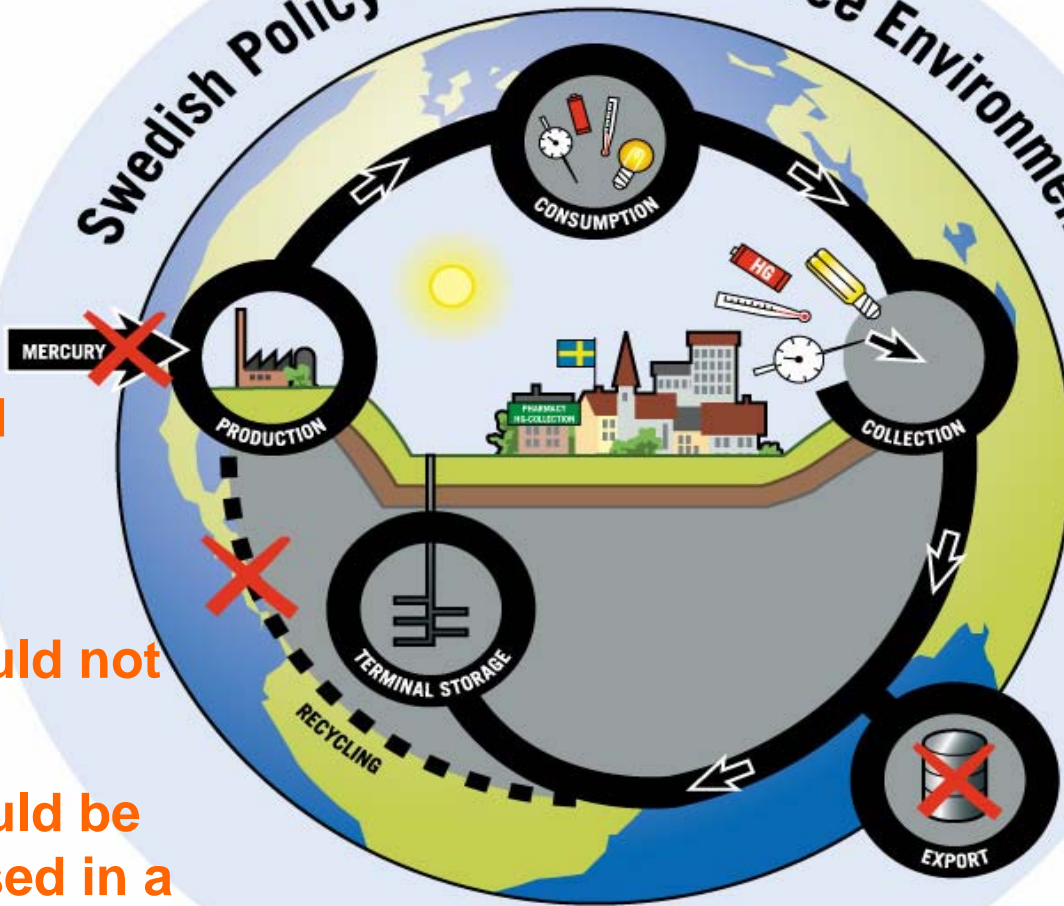
Phase-out of dental amalgam in Sweden

Petra Ekblom

Swedish Chemicals Agency

An authority under the Swedish Ministry of Environment

Swedish Policy for a Mercury Free Environment



Phase out use in products and processes.

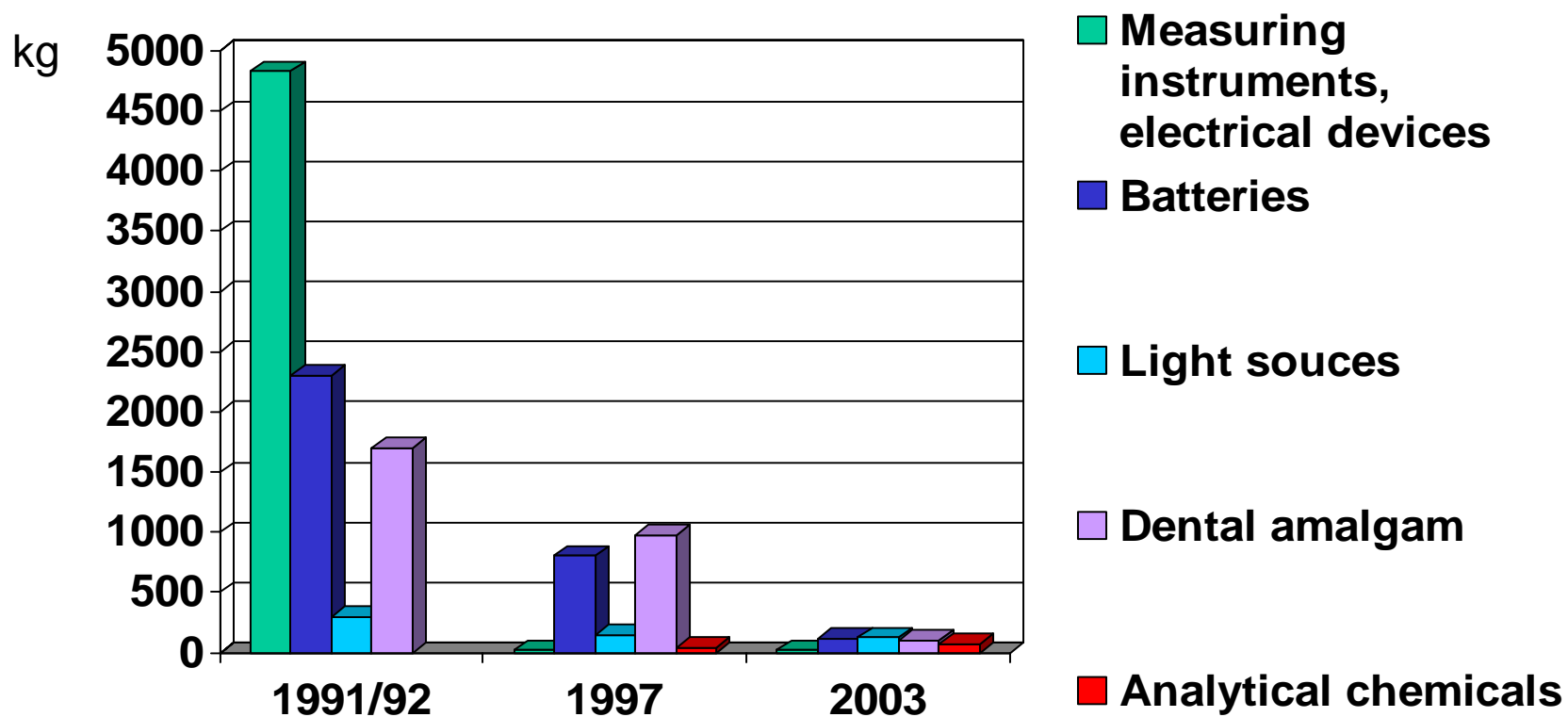
Mercury already in society should be collected and treated.

Mercury should not be recycled.

Mercury should be safely disposed in a final storage.

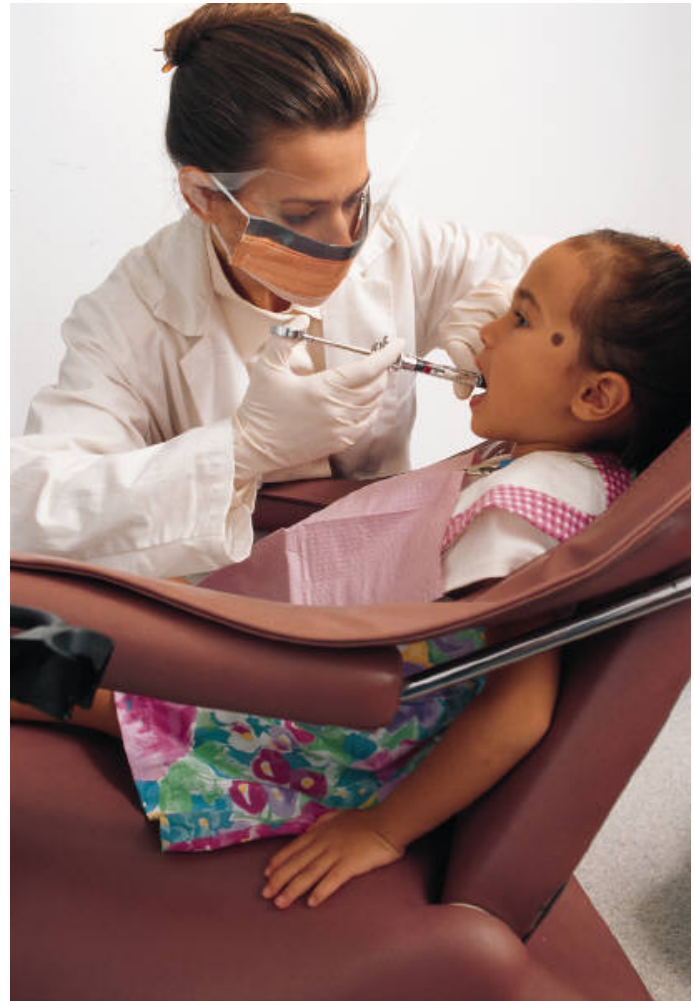
No export.

Yearly supply of mercury in products in Sweden 1991-2003

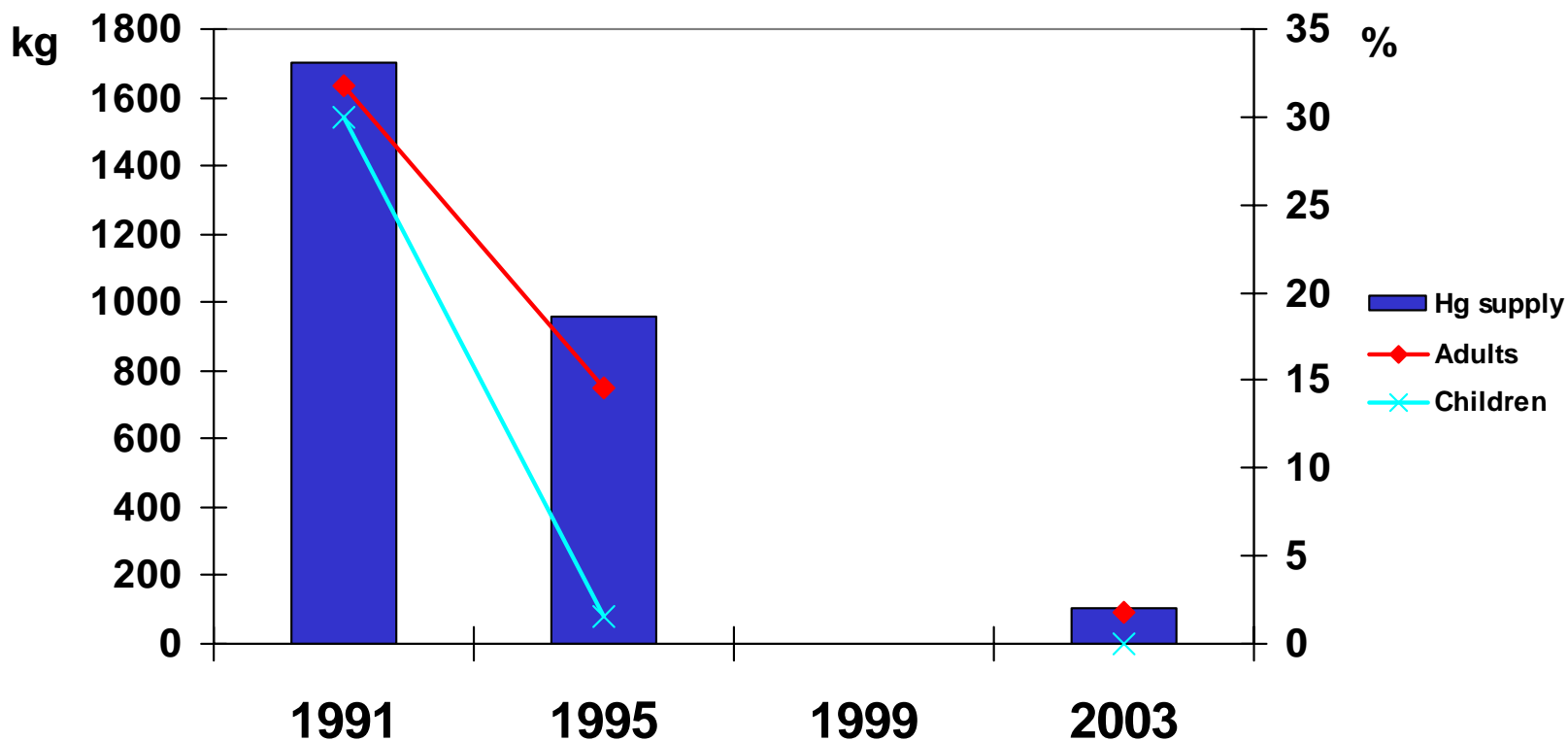


Risk reduction measures

- **1995** – Voluntary agreement between the State and the County Councils to phase-out use on children
- **1999** – No financial support given to patients from Swedish dental insurance for amalgam fillings



Mercury supplied to dental amalgam (kg)¹ and amalgam fillings in % of total fillings²

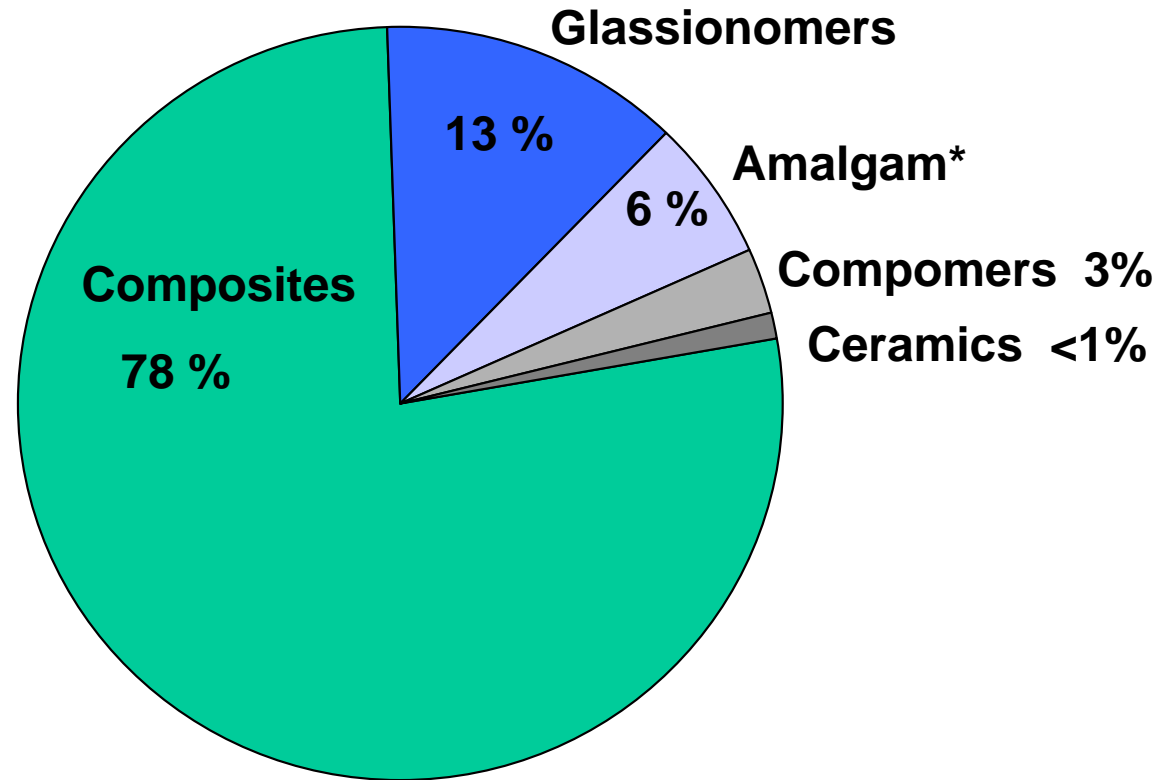


¹ Data from the Swedish Dental Trade Association

² Swedish Board of Health and Welfare, questionnaires to users

The shares of dental filling materials used in Sweden (% by weight*)

Kemi PM 9/2005



* One kilo of composites will fix many more teeth than one kilo of amalgam due to the differences in weight of the materials.

Allergy risks of composites

- Unpolymerized acrylic-resin based materials
- Allergies increased in mid-1990s among **dental staff**
- Info programme and inspections have improved information and packaging
- Dental staff allergies decreased to a few cases/year
- Allergies in **patients** have not been a general problem in Sweden

Government's Commission in 2004 Investigation of a general ban on mercury

- *"Is it possible to prohibit the remaining use of dental amalgam?"*
- Cooperation with the Swedish Board of Health and Welfare
- Consultations with stakeholders
(Dentist Association, Dental Trade Association,
Water Companies, NGOs)

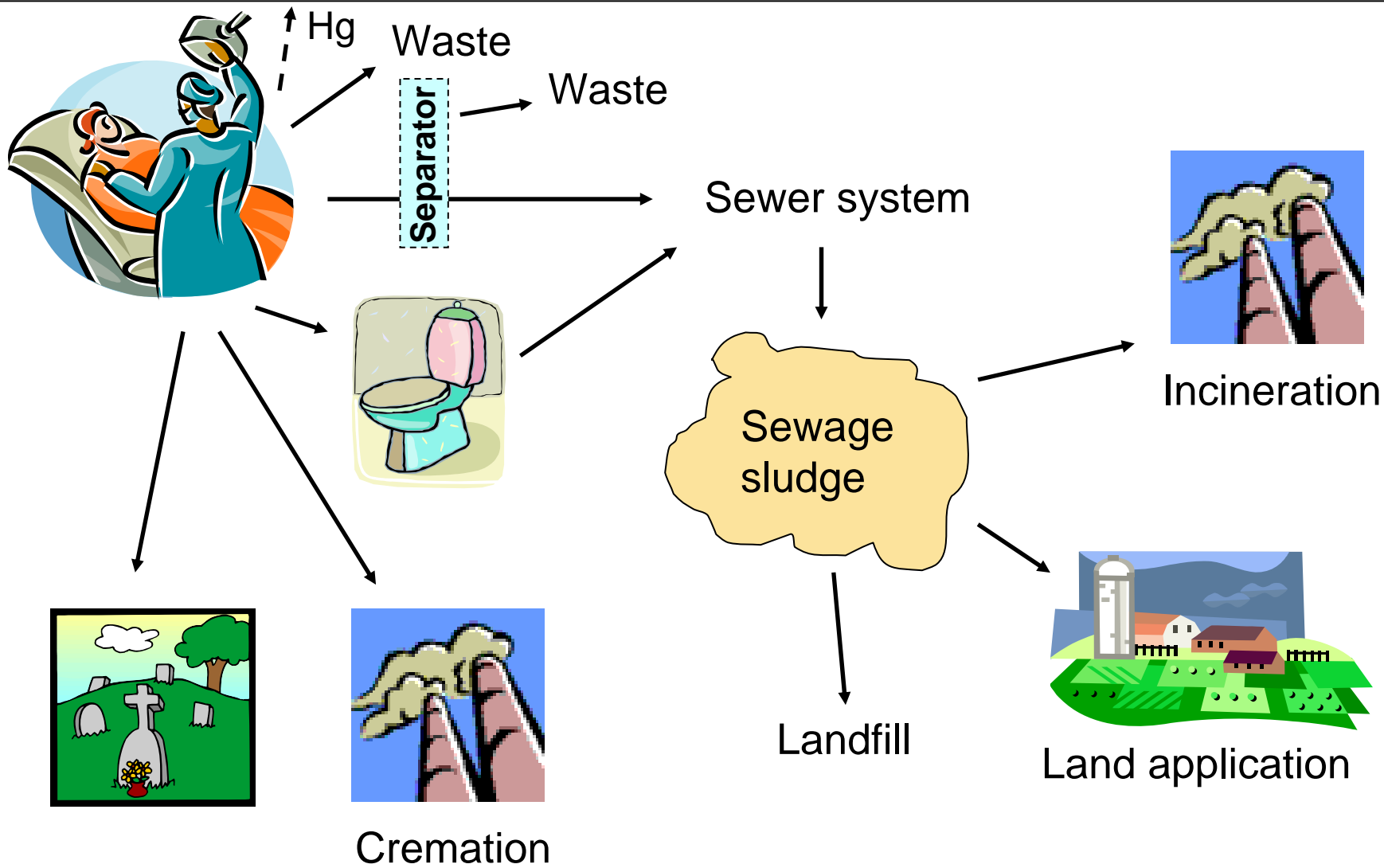


Investigation of a general ban on mercury

- Strong support for a ban to eliminate the use for environmental reasons, but
- Different views on the need for an exemption for exceptional cases within hospital dentistry.

Proposal

- Amalgam included in a general mercury ban.
- Exemption until 31 Dec 2009 for use on adults in hospital dental care when, for special medical reasons, other treatment methods cannot be used. The reasons shall be recorded by the dentist.
- The general ban notified to the EU and WTO in 2006 (not yet in force).



Mercury in sewage sludge

Eslöv, Sweden, December 2005

- 1210 tonnes of sewage sludge contaminated by ~ 1½ tablespoon mercury (25 ml).
- Dental clinics suspected (pipe sediment).
- The sludge not suitable for land application.
- Landfill cost 713 000 SEK (~ 78 000 EURO) + cost for extra work

Swedish experiences in summary

- It has been possible to reduce the use of dental amalgam substantially (90 % in 10 years).
- Composites have replaced more or less all types of restorations where amalgam was previously used
- The patients cost for composites and amalgam are about the same
- Control measures are needed to achieve a total phase-out
- A phase-out is the only sustainable long-term solution

Reports available at www.kemi.se

- Kemi Report No. 4/04. ***Mercury – Investigation of a general ban.*** 2004.
- Kemi PM No 9/05. ***Mercury-free Dental fillings – Phase-out of amalgam in Sweden.*** 2005.
- Kemi PM No 7/05. ***Mercury-free blood pressure measurement equipment – Experiences in the Swedish healthcare sector.*** 2005.

A photograph of two people fishing in a forest stream. The person on the left is wearing a blue cap and a white shirt, and the person on the right is wearing a yellow shirt and a white cap. They are sitting on a large, mossy rock in the foreground, looking down at the water. The stream is surrounded by lush green trees and ferns. The text "Thank you for your attention" is overlaid in the center of the image.

Thank you for your
attention