Case study
Genetic testing, risk prediction and behavioral change

Program:
- discuss in subgroups for 20-30 minutes
- plenary presentation of results
- plenary discussion afterwards

1. Prevention of diabetes with lifestyle recommendations.
Body mass index (BMI) is an important risk factor for type 2 diabetes. Lifestyle changes are an effective way to reduce risk, but people are not doing it. It is frequently argued that genetic risk information can motivate individuals at risk to eat healthier and exercise more.

Assume that you are aware that several of your lifestyle behaviors may not be the most optimal. You love food, enjoy going out in the weekends, exercise not more than a 10min bike ride to work. You are overweight, on the virtue of becoming obese, you are a social smoker, moderate user of alcohol (heavy user in most weekends). You do care about your health, but you are not aware of the risks associated with your lifestyle.

Question: What kind of risk information would you need to change your lifestyle to reduce your risk of diabetes?

2. Prevention of breast cancer with mammography screening
Women from the general population are invited for mammography screening every other year between the ages of 50 and 75 years. The invitation is send by mail together with a brochure that describes the importance of the screening program. Mammography screening is non-invasive, but an uncomfortable procedure. About 80% of the women participate in this program. One of the reasons for non-participation is that most women do not have (blood) relatives with breast cancer and may not feel at risk.

Question: What risk information do we need to put in the brochure?

For the presentation, consider/include the following:
What risk(s) might change their behavior, and why?
What kind of epidemiological study do you need for this?

➢ Report what risks you have considered in your deliberations.
➢ Report how you came to your decision. What mattered?