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Public health: the organised effort of society to improve the health of the population (Beaglehole 2004)

Crucial elements:
• the population perspective (NOT the individual)
• relying on epidemiology
• application to:
  ➢ Promote the health of the entire population / subpopulations
  ➢ Prevent disease and disability
  ➢ Provide preventive, curative and rehabilitative care to the population
Non Communicable Diseases: The Focus on Risk Factors

• Non-communicable diseases: major health problem → leading cause of premature death and disease burden (Europe and worldwide)

• Modifiable risk factors contribute to the majority of NCDs

• Risk factors show distinct associations with NCDs and have a different lifetime pattern → life course perspective
Cumulative Life Course Risk Factors for Non-Communicable Disease (NCD)
Highlighting the influence of sex and gender-related factors

- Maternal nutrition
- Socioeconomic status
- Birth weight
- Growth rate
- Diseases
- Smoking
- Obesity
- Physical inactivity

Established adult behavioral risk factors

Sex-related biological factors

Gender-related social factors

Accumulated Risk of Developing Non-Communicable Diseases

Fetal Life | Childhood | Adolescence | Adult Life

Adapted from Darton-Hill et al., 2004
Intersectional Approach & Understanding of Risk Factors

- Considerable differences between women and men in risk factor prevalence
  - Factors intersecting with sex and gender on risk factors: e.g. ethnicity, migration status, socio-economic status, sexuality, geography
  - Variations between countries, country income groups

- Broad understanding of risk factors: modifiable risk factors + mental health and occupational health (strong relations with NCDs)
Sex, Gender and Risk Factors for NCDs

SEX AND GENDER

INFLUENCE

SMOKING
ALCOHOL CONSUMPTION
PHYSICAL ACTIVITY
OBESITY
WORK
STRESS/DEPRESSION/ANXIETY

NON-COMMUNICABLE DISEASES (E.G. CANCER, CARDIOVASCULAR DISEASE, CHRONIC LUNG DISEASE ETC.) AND INTERVENTIONS
Workshop

Sex and Gender in Public Health and Prevention

- 22 participants

- Inclusion of many stakeholders: researchers, policy-makers, politicians, advocacy groups, funding bodies, WHO and European Commission representatives, media and communication actors

- Workshop structured into two blocks:
  - Knowledge → assemblage of available but frequently unstructured information on sex and gender in PH and prevention
  - Implementation → discussion about practices, priorities and principles
Title: Sex and gender aspects of risk factors for non-communicable diseases (NCDs) across Europe

- Contributions to workshop 1.2 (Maastricht, 2-3 February 2015)
- 14 contributors, 6 writing teams
  
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  Sabine Oertelt-Prigione
  Helen Sweeting
  Petra Verdonk
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- Coordination: Elisabeth Zemp Stutz, Lucie Dalibert

- Submittable draft to International Journal of Public Health (IJPH) by July
Structure of Position Paper

Paper composed of 6 chapters, each structured as:

- Public health relevance and epidemiology of risk factor
- Sex and gender related aspects of risk factor
- Evidence on gender-sensitive interventions
- Open questions, gaps
Obesity: PH relevance and epidemiology

- Obesity promotes and exacerbates the progression of diseases responsible for largest proportion of deaths in the world, e.g. CVD, diabetes and cancer

- European Union:
  - Overall number of overweight and obese has risen over the past decade
  - Cross-European variations and differences in m/f rates of obesity
  - 25% of European school children are now overweight or obese

- Very complex condition from political, biological and behavioural perspective

- Yet, most initiatives miss the significance of the sex-differences and gendered nature of this problem
Sex matters in obesity

- BMI cut-off values does not directly reflect the amount of body fat
  - Women store proportionally greater amounts of fat than men
  - m/f patterns of fat storage: intra abdominal (android obesity) and gluteal/femoral region (gynoid obesity)

- Cardio-metabolic risk:
  - Visceral fat and subcutaneous adiposity
  - Post-menopausal women and pre-menopausal women

- Strong age effect on overweight and obesity between the sexes
Median Body Mass Index (BMI), Overweight and Obesity Prevalence, by Age and Sex, 2008, Available EU Countries

Belgium, Bulgaria, Czech Republic, Germany (until 1990 former territory of the FRG), Estonia, Greece, Spain, France, Cyprus, Latvia, Hungary, Malta, Austria, Poland, Romania, Slovenia, Slovakia, Turkey

Source of data - Eurostat
Gender matters in obesity → gender related aspects of obesity

- Gender differences in body image, satisfaction and related behaviour
  - Diet and food management
  - Less weight concerns in boys than girls
    - Normal weight boys more likely to think that they are underweight and normal weight girls that they are overweight
    - Overweight boys more likely to exercise and begin dieting at higher BMI than girls; girls more likely to attempt unhealthy quick-fix dieting practices
  - Gendered differences that extend into adulthood and gendered view on obesity that extends into healthcare
• Complex relationship between overweight, education and socio-economic status

➢ Overweight in men increases with educational attainment, whereas the opposite is true in women

➢ Different meaning of overweight: indicator of social standing in some male group, yet increasing feeling of social stigma
Median Percentage of Obesity, 2008, Selected Countries\(^1\), by Educational Status

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-primary, primary and lower secondary education</td>
<td>Males: 42% Female: 36%</td>
</tr>
<tr>
<td>Upper secondary and post-secondary non-tertiary</td>
<td>Males: 44% Female: 37%</td>
</tr>
<tr>
<td>First and second stage of tertiary education</td>
<td>Males: 45% Female: 38%</td>
</tr>
</tbody>
</table>

\(^1\)Belgium, Bulgaria, Czech Republic, Germany (until 1990 former territory of the FRG), Estonia, Greece, Spain, France, Cyprus, Latvia, Hungary, Malta, Austria, Poland, Romania, Slovenia, Slovakia, Turkey

Source of data - Eurostat
Obesity: Sex and Gender Related Aspects

• Gendered differences in the impact of sexuality on obesity
  - Lesbian women more likely to be overweight than heterosexual women
  - Some groups of homosexual men celebrating overweight as a sign of their identity

• Gendered differences in the relationship between mental health and obesity
  - Obese women at higher risk of anxiety and depression ↔ suggestion that men may support the ‘jolly fat’ hypothesis
  - Impact of social stigma when overweight more pronounced for women
Obesity: Gender-Sensitive Interventions

- Strategies aimed at weight loss
  - Effectiveness of these strategies improves by combination of dietary modification (weight loss) with physical activity (maintenance of weight loss)
  - Women: greater difficulty than men in losing weight
  - But once men and women are engaged in a weight loss initiative, both sexes are likely to benefit
Obesity: Gender-Sensitive Interventions

- Challenge = getting men and women in weight loss programmes

  - Strong societal assumption that overweight and obesity are a female issue → majority of weight loss services aimed at women

  - Lack of appreciation of the needs of men → alternative provision may be required

  - Most effective interventions addressing health-damaging behaviour are consistent with prevailing gender cultures
Obesity: Gender-Sensitive Interventions

DEVELOPING AND EVALUATING FOOTBALL FANS IN TRAINING

After more than 3 years of hard work, we were delighted to announce the publication of the results of the Football Fans in Training Randomised Controlled Trial with the *Lancet*. The paper is available to read for free and is published alongside a paper in BMC Public Health that explores the appeal of the football club as a setting for men’s weight management programmes. For more information about these papers see the Findings section of this website.
Obesity: Conclusions

• Key intervention studies still adjusting for age and sex → reduces ability to identify sex-specific factors

• Policy should be ensuring that proper attention is given to gender
  ➢ European EPODE (‘Ensemble Prévenons l’Obésité Des Enfants) Network and EU Action plan on Childhood Obesity 2014-2020: no mention of gender or sex-differences

• Relative failure of having a weight-aware society points to the need for alternative health promotion approaches
  ➢ Training needed to reach out and target men and women more effectively
  ➢ Educational packages needed on gendered nature of weight and diet and on strategies to be utilised for men and women of differing ages, ethnicities and socio-economic circumstances
Conclusions

Relevance of sex and gender (and intersecting factors) in obesity

- Appeal of explicitly gender-sensitive prevention approaches, but:
  
  - major publications do not address sex and gender aspects
  - paucity of sex- and gender-specific interventions and recommendations for prevention.
  - scarce research on impact and efficiency of such approaches
  - lack of critical discussion on methodology of gender-sensitised interventions
Thank you for your attention

Team Public Health and Prevention Workshop and Position paper:

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http://www.eugenmed.eu