4.H. Pitch Presentations: Inequalities around Europe

Implementation and equity trends in twenty-five years of European mammography screening programmes
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Background
The aim is to describe the implementation of population-based breast cancer screening (BCS) programmes in the EU since their initiation based on the European Guidelines for Quality Assurance in Breast Cancer Screening and Diagnosis.

Methods
The following surveys were consulted: International BCS Network (IBCSN) (1990); IBCSN and European Network of Pilot Projects for BCS (1995); European Cancer Network (2000); European Network for Information on Cancer and Report on the implementation of the Council Recommendation (2005-2007); European Commission Initiative on Breast Cancer (ECIBC) (2010-2012); European Partnership Against Cancer inequality survey (EPAAC) (2013), ECIBC and EPAAC surveys updates (2015). Organisational (implementation, coverage) and equity variables (free of charge, social groups not included in the target population, interventions to tackle inequalities in access) were analysed. A comparative descriptive analysis was performed.

Results
The number of countries with BCS programmes and responding to the surveys grew from 5 in 1990 to 16 in 1995 and 2000, 18 in 2007 and 27 in 2015. Up to now, in most countries more than 80% of eligible women are actually invited for a mammogram every other year.

Equity variables were not available in all surveys. Results show that 95% of 22 in 2013 and 96% of 27 in 2015 are free of charge; moreover 55% of 22 in 2013 and 56% of 27 in 2015 had social groups not included in the target population; finally 82% of 22 in 2010–2012, 50% of 22 in 2013 and 67% of 27 in 2015 performed interventions to tackle inequalities in access.

Conclusions
Population-based BCS is now in place or planned in nearly all the EU Member States. Future challenges will be to maintain the coverage reached despite the austerity, to improve access through a universal and free access to reduce inequalities, and to increase safety through the implementation of evidence-based tailored protocols and interventions to tackle inequalities.

Key messages
- A good population coverage by organised breast cancer screening programmes is nearly reached in Europe

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Background

Equitable healthcare makes an important contribution to mitigating socioeconomic inequalities in health. Amenable mortality is an internationally used measure of health system performance, indicating deaths which in theory should not occur given effective healthcare. We studied trends in socioeconomic inequalities in amenable mortality over two decades in England.

Methods

Mortality records and relative deprivation measures from 1990 to 2010 are available at small area level (measured using an adjusted Carstairs index). Amenable mortality (AM) was defined on the basis of previously published definitions, excluding ischaemic heart disease. Age standardised rates (ASR) were calculated for people aged 0–74 years. Relative indices of inequality (RII) were calculated for each year, stratified by sex, using Poisson regression. The RII is obtained by regressing the outcome on the standardised deprivation rank and can be interpreted as the relative risk for AM of the hypothetical most compared to the least deprived, taking into account the whole socioeconomic distribution.

Results

There were 1,074,573 amenable deaths for people aged 0–74 years. In 1990, 2000 and 2010 the ASR for men in the most deprived (MD) decile were 266, 242 and 155 per 100,000 respectively; in the least deprived (LD) 127, 106 and 63 per 100,000. Equivalent rates for women in the MD were 212, 184 and 131 per 100,000 and in the LD, 130, 107 and 64 per 100,000. The RII for men in 1990 was 2.21 (95% CI = 2.13-2.30); in 2000 RII = 2.44 (95% CI = 2.34-2.55); and in 2010 RII = 2.83 (95% CI = 2.69-2.98). The RII for women in 1990 was 1.67 (95% CI = 1.50-1.74); in 2000 RII = 1.79 (95% CI = 1.72-1.87); and in 2010 RII = 2.18 (95% CI = 2.08-2.30).

Conclusion

Inequalities in amenable mortality have increased over time, suggesting quality of care may not be improving equally for those living in more deprived and less deprived areas. The question remains as to the extent to which amenable mortality measures health system performance.

Key message

• Socioeconomic inequalities in amenable mortality have increased in England over time. This trend may reflect changes in health policy; comparative analysis with other European countries is required

Trends in educational inequalities in smoking and sporting inactivity in Germany from 2003 to 2012

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Background

Declining rates of smoking and sporting inactivity have been observed in several European countries. The aim of this study was to examine whether these trends can be found in all educational groups, and how educational inequalities in smoking and sporting inactivity developed over time.

Methods

Data were derived from three cross-sectional population-based telephone surveys of adults in Germany carried out in 2003, 2009 and 2012 (n = 34,251; age = 30–69 years). Participants were asked about their smoking behaviour and engagement in sports. Educational level was measured with the CASMIN classification of educational qualifications. The Slope Index of Inequality (SII) and the Relative Index of Inequality (RII) were calculated to investigate time trends in absolute and relative educational inequalities in smoking and sporting inactivity, stratified by survey year and adjusted for age and sex.

Results

Among the highly educated, the prevalence rates of smoking and sporting inactivity declined significantly between 2003 and 2012 (p < 0.001). Among the low-educated, these rates remained stable over time. Relative educational inequalities in smoking increased significantly between 2003 (RII = 1.81; 95% CI = 1.37–2.08) and 2012 (RII = 2.21; 95% CI = 1.94–2.53; p-trend < 0.05), whereas no significant trend could be established for absolute inequalities in smoking. With regard to sporting inactivity, absolute and relative inequalities were found to have increased significantly from 2003 (SII = 29.3; 95% CI = 24.2–34.5; RII = 2.04; 95% CI = 1.79–2.32) to 2012 (SII = 42.1; 95% CI = 38.0–46.1; RII = 3.38; 95% CI = 2.99–3.83; p-trend < 0.001, respectively).

Conclusions

The findings suggest that trends of declining rates of smoking and sporting inactivity in Germany were restricted to the higher educated. Consequently, educational inequalities in these lifestyles have increased since 2003. Interventions to promote healthy lifestyles should be better targeted to educationally disadvantaged groups.

Key messages

• Educational inequalities in smoking and sporting inactivity among adults in Germany have increased between 2003 and 2012

• Interventions to promote healthy lifestyles should be better targeted to educationally disadvantaged groups

The adaptive behavior of homeless children in Paris region, France, in 2013

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Introduction

The number of families housed by the Samu Social de Paris increased by 5 between 1999 and 2009. Previous studies have revealed developmental problems in children of homeless families.

Objectives

To describe the adaptive behavior status within homeless children in Paris region, France, and highlight factors associated with developmental delay.

Methods

In 2013, a random survey was conducted among homeless families housed in emergency centres for asylum-seekers, emergency housing centres, social reinsertion centres and social hotels in the Paris region. A bilingual interviewer and a psychologist conducted the survey in 17 languages. A nurse took the anthropometric measures and collected health data from child health and immunization cards. For children aged 0–5 years old, mothers (or fathers when mothers were absent) were asked...

**Results**
The built random sample consisted in 801 families including 557 in which the selected child was 0–5 years old, which represents 11448 children (95% CI = 10354–12541). The estimated mean (±SD) of the composite score of Vineland-II is 75.38 (±12.03) (95% CI = 74.07–76.70) which mean that 9259 children aged 0–5 years old (95% CI = 7684–10833) have a developmental delay. The most associated factor with the decrease of the Vineland-II score is the age (p < 0.0001) in the linear multivariate model.

**Conclusion**
The ENFAMS survey reveals large developmental problems among homeless children in Paris region. The more the children are exposed to homelessness, the more the adaptative functioning is impaired.

**Key messages**
- The more the children are exposed to homelessness, the more the adaptative functioning is impaired.
- The ENFAMS survey reveals large developmental problems among homeless children in Paris region.

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**Not seeking healthcare pathways among homeless women living with children in Paris region in 2013**

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**Background**
Homeless women encounter many barriers to healthcare. While their health status is poor, reasons for not seeking healthcare are multiple, such as multiplicity of shelter moving, lack of social support, daily low mobility and poor financial resources. The aims of our study were to describe the giving up care among homeless women living with children and to study factors associated with it.

**Methods**
Homeless women with children (N = 764) were interviewed during the ENFAMS survey, a representative survey of homeless families conducted by the Observatoire du Samu Social in Paris region during winter 2013. Structural equation modeling was used to estimate the impact of various factors on women’s giving up care over the last year. Latent variables taken into account were: health status, addictions, migration status, parental status, housing conditions, financial resources, daily mobility, social support, victimization.

**Results**
Among homeless women, 25.5% (95% CI[21.9-29.1]) had given up healthcare over last year. They had mainly given up the general practitioner (29.5% 95% CI [21.4-37.7]) or the mental specialist (37.0-53.4%). The main reason of not seeking healthcare was financial (59.6% 95% CI[51.5-67.7]). In addition to mental health status, the role of financial resources and daily mobility were particularly important in the pathways model tested.

**Discussion**
The proportion of people who have given up care was similar in French general population. This study demonstrates that the using structural modelling may help to disentangle the multiple factors associated with the not seeking health care of homeless women. It allows public policies and programmes to better reach this population, and to develop targeted health care services and to prevent some of them (e.g. decreasing the frequency of their shelter moving).

**Key messages**
- One quarter of homeless women had given up healthcare over last year.
- Factors associated with the not seeking healthcare of homeless women were multiple.

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**Educational inequalities in offspring birthweight: cohort study of young mothers in Scotland, 2007–12**

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**Background**
Poor maternal educational attainment is associated with an increased risk of having low birthweight offspring. Such babies are at a greater risk of future adverse health and economic outcomes shown to be associated with low birthweight. We investigate whether educational inequalities in offspring birthweight status persist after adjustment for maternal childhood health, educational and antenatal risk factors in a population of publicly-funded female school leavers in Scotland during the period 2007–2012.

**Methods**
Linked education and health data for first-time pregnant females aged 12–26 years were drawn from a wider cohort of school leavers during the period 2007–11. Data were further linked to offspring birth records. Logistic regression modelled the effect of educational attainment on odds of having a low birthweight baby. Attainment was measured using tariff points, ranging from 1 to 120 per individual subject depending on course level and award attained. A total score was calculated by summing all points accumulated during school. Associations were observed before and after adjustment for covariates. Maternal and offspring multiple-births, stillbirths or births resulting in neonatal death and known emigrants after school-leaving were excluded.

**Results**
In the population of 9,955 first-time mothers, 575 (5.78%) had a low birthweight (<2500g) baby. Educational attainment was significantly associated with odds of having a low birthweight baby: odds decreased by 19% (OR = 0.81, 95% CI = 0.74-0.90) for a one standard deviation increase in total tariff score. The effect of attainment on low birthweight status was only partly explained by maternal birthweight, childhood health and other educational risk factors (OR = 0.86, 95% CI = 0.74-1.01). Although the association between attainment and offspring birthweight became non-significant when offspring antenatal factors were added (OR = 0.91, 95% CI = 0.74-1.11), only 53% of the effect was explained.

**Conclusion**
Targeting young women during pregnancy and improving antenatal risk factors, e.g. smoking, has the potential to contribute to a decrease in educational differences in the risk of low birthweight offspring.

**Key messages**
- Educational inequalities in birthweight exist in first-born offspring of young mothers in Scotland
- There is a persisting transgenerational effect of maternal birthweight on offspring birthweight.
(MoH) launched the Health Transformation Program in 2003 for effective, efficient and fair provision of health care services for all people. This study aims to take a closer glance at the impact of policies implemented for the reducing of imbalance of the distribution of health human resources for the last ten years in Turkey.

Methods
MoH registries were used to reach the provincial distribution of active health personnel. Distributional imbalance was analyzed by using Lorenz curves and Gini coefficient (GC) for the years 2002, 2005, 2008 and 2012. Eighty-one provinces consisted of the analysis units and number of health personnel and population of each province have been taken into account for the selected years.

Results
Geographical imbalances for health care professions have shown a noticeable decrease along the ten years period. GC was 0.24 for specialists’ distribution in 2002, but it fell down gradually to 0.22 in 2005, 0.18 in 2008 and finally 0.12 in 2012. Similarly these GCs were 0.21, 0.23 and 0.23 for general practitioners, nurses and nurse plus midwives respectively in 2002. In 2012 the GCs for the same professionals were calculated as 0.10, 0.15 and 0.17 respectively.

Conclusion
The findings indicate that the policies, which have been implemented for the distribution of the health care personnel in Turkey, have yielded positive results. Yet, it is obvious that these results are not due to a single action merely. In this context, it is essential to further improve the existing implementations, search for the instruments and factors that will further satisfy and motivate health care personnel, and to continue developing and implementing comprehensive policies aiming proper solutions.

Key messages
- Gini based metrics can give more accurate results, for monitoring health human resources interventions
- Health human resources distribution issues are problems which can be solved in the long term

Oral Health Support Center in Porto, Portugal
Francisco Pavao

Issue
Portugal finds itself facing high levels of Oral diseases that can have a significant impact on quality of life when they compromise basic functions (e.g. chewing, talking) and overall health.

The district of Oporto (Portugal) has 1/3 of the Portuguese Beneficiaries of the Social Insertion Income. Shaky employment and unemployment, are important factors of poverty and social exclusion. NGO Mundo a Sorrir elected this as the priority area of intervention of the Oral Health Support Centre (CASO), providing to the neediest populations oral health treatments that will contribute to improve their life conditions and increase local development.

Problem
CASO is the only Social dental clinic in Portugal in which all dentists work voluntarily. Implemented in 2009 in the city of Oporto with the main purpose of providing medical and dental treatment for the low-income population.

Can a solid oral health prevention be linked to a higher self-esteem and better health conditions? Could it facilitate the inclusion of some individuals into the society?

Results
This project benefited more than 3.000 patients, performed 18.848 treatments and 156 prosthetics rehabilitations. A prospective analysis Social Return on Investment (SROI) was used to measure the impact of the provision of medical and dental care in the lives of people without access to them. The SROI ratio obtained was 1:3.89 euros (per 1 euro invested, there is a social return of 3.89 euros). This allowed us to identify changes generated by this intervention: increased knowledge about oral health, improved self-esteem and psychological well-being, improvement of interpersonal/social relationships and greater employment chances.

Lessons
This project involves the stimulation of public and private organizations, to acknowledge the needs of Oral Health in Portugal and how its promotion contributes to the improvement of public health. On 18th April 2015 we replicated this project in Braga, with the partnership of the City Council.

Key message
- "I felt like I was still young, to be with my mouth so badly treated, I still would be with no teeth because financially I couldn’t. The end of treatment was the best moment I had in my life"