

Posters

Strand organiser: Cecilia Macintyre, UK Statistics Authority

Infant and child health in Albania.

Katie Bates, London School of Economics

OBJECTIVE The poster explores the double burden of malnutrition amongst under-fives in Albania in both an international context and in the context of the nutrition transition theory.

METHODS Anthropometric indices for Albania will be created from the 2008-2009 DHS survey using the WHO 2006 Child Growth Reference Standards. Descriptive statistics will be presented for the anthropometric indices, exploring the socioeconomic dimensions of malnutrition. The nutritional status of the Albanian under-five population will be presented in relation to other populations experiencing a similar double burden of malnutrition, as well as in the context of the nutrition transition theory to explore the distinctive trajectories of those populations currently facing a double burden of malnutrition.

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Improving Migration and Population Statistics Using Administrative Data.

Sarah Blake, Nicky Rogers, Office for National Statistics

The Improving Migration and Population Statistics Programme is a cross-government programme of work led by the ONS Centre for Demography that focuses on research into new and innovative methods and data sources for improving official migration and population statistics. The programme takes forward recommendations from the National Statistics Quality Review into International Migration (NSQR), the 2006 Inter-Departmental Task Force on Migration Statistics, and subsequent parliamentary reviews of migration statistics.

The poster gives an overview of the current work and potential uses of different administrative data sources for estimating migration rates and distributions. The data sources include School Census, e-Borders, Higher Education Statistics Agency (HESA) student data, and the Migrant Workers Scan supplied by Department for Work and Pensions (DWP) on behalf of HM Revenue and Customs (HMRC).

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Modelling Stunting and Underweight in Malawi

Lana Chikhungu, University of Southampton

Under-nutrition resulting from chronic food insecurity and exacerbated by frequent infections, has persisted in Malawi for many years. The estimate for underweight children is 22% whilst stunting is estimated at 48% (ORC Macro, 2006). These levels of under-nutrition are extremely high considering that the expected level of stunting and underweight is about 2% for a well nourished population (ORC Macro, 2006). Using the 2004 Malawi Demographic and Health Survey data and formulas developed by Pelletier et al., ORC Macro estimates that 34% of all deaths that occur before the age of five in Malawi are related to under-nutrition. The effects of stunting have not been analysed yet in Malawi. However studies in other countries have found associations between

stunting and poor cognitive skills but also low productivity in adult life (Guerrant et al., 2008). Continued understanding of the factors associated with stunting and underweight is vital so as to better inform policy making that aim to tackle the problem of under-nutrition in Malawi. This paper uses the 2004 Malawi Demographic Health Survey to analyse the relationship between childhood stunting and underweight and the different socio-economic factors. Factors that emerge as important in explaining both the likelihood of the child being underweight and the likelihood of the child being stunted are wealth status, urban/rural residence, size of child at birth, diarrhoea status, sex of child and age of child. Factors that are unique to explaining the likelihood of a child being underweight are fever status of the child, region of residence and father education level, whilst the one factor that is unique to explaining the likelihood of the child being stunted is ethnicity. The analysis has shown that the likelihood of the child being stunted is affected more by variation at community level than is the likelihood of the child being underweight.

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Compression of Morbidity and Socioeconomic Deprivation in New Zealand: An Analysis of Hospital Use in the Last Few Months of Life, 1990-2006

Ngairé Coombs, University of Southampton

The compression of morbidity hypothesis is usually explored at a country level, yet there are inequalities in health and life expectancy by socioeconomic deprivation within countries. This paper aims to assess the compression of morbidity hypothesis through the use of New Zealand mortality and hospital discharge data, and identify if the process of compression / expansion of morbidity varies by socioeconomic deprivation. This is achieved by examining differences in hospital utilisation prior to death for individuals in New Zealand who died between 1990 and 2006. Utilisation of health services is an underused indicator in this field, a secondary aim is to assess the relevance of using hospital bed days as a proxy for morbidity in different settings.

The data used comes from National Minimum Dataset records on deaths and public hospital discharges between 1988 and 2006. NZdep 91, 2001 and 2006 deprivation deciles are used. Individual linkage between anonymous mortality and hospital records allows examination of hospital use in a window preceding death. Hospital bed day rates are used in preference to discharge rates, in order to weight by severity of the hospital episode, and are filtered to represent ill health (excluding obstetrics etc.). Reference point models provide a visual display of the patterns of hospital bed days in the last few weeks and months of life, allowing comparison by age of death, deprivation decile, gender, and cause of death. Hazards models provide a statistical, rather than visual comparison of hospital use prior to death for different groups.

The analysis is ongoing (expected completion early September 2010). In health systems with universal, free health care hospital bed day rates are found to be an acceptable indicator of morbidity after filtering to exclude events not related to ill health, closely following trends in mortality rates. Utilisation of health care services is a valuable and underutilised indicator of morbidity in health research.

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Divorce and economic activity among married women in England and Wales

Deborah Davies, University of Southampton

Divorce rates in England and Wales have been rising sharply from the 1960's and policy and scientific discussion of this rise has occurred alongside rhetoric about the decline of the family and the impact of divorce and single-parent families on the social and child wellbeing. Across the 20th century trends in the economic activity of married women have also been upwards and theories have emerged that hypothesise a relationship between the two trends, with many suggesting that female employment is a factor in the rise in divorce.

However, many of these theories focus on short time periods and may also imply underlying assumptions that distinct gender roles within marriage (i.e. the breadwinner/housewife model) are both traditional and natural, and that recent increases in economic activity among wives are a new phenomenon, assumptions which may not hold when a historic view is taken.

My research aims to re-examine the hypothesised relationship between divorce and economic activity among married women by examining aggregate historic change over time followed by analyses of individual-level data. A conceptual framework is also being developed which summarises aggregate (macro) and individual (micro) level theories of divorce trends and economic activity trends among married women and will identify possible linkages between the different levels. This poster presentation will focus on the first section of this work-in-progress: Discussion about the research project will be presented along with the conceptual framework which is currently under development. Some preliminary results will be also presented.

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National Population Projections.

Meghan Elkins, Denise E. Williams, Steve Rowan, Emma Wright, Office for National Statistics

National population projections are prepared by the Office for National Statistics (ONS) on behalf of the National Statistician and the Registrars General for Scotland and Northern Ireland. They are produced every two years and provide projections of the future size and age structure of the population of the UK and its constituent countries. The projections are based on the latest available mid-year population estimate and a set of demographic assumptions about future fertility, mortality and migration based on analysis of trends and expert advice. The projections are not forecasts and do not attempt to predict the impact that future government policies, changing economic circumstances or other factors (whether in the UK or overseas) might have on demographic behaviour. The latest set of national population projections is the 2008-based projections published by ONS in October 2009. This poster outlines the assumptions underlying the latest projections, the methodology used to produce them and key results.

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Northern Ireland Longitudinal Study (NILS).

Fiona Johnston, Northern Ireland Longitudinal Study – Research Support Unit

The Northern Ireland Longitudinal Study (NILS) comprises two major record linkage studies covering the whole of the Northern Ireland population. The NILS is a large-scale, representative, data-linkage study of approximately 500,000 people that has been created by linking statistical and administrative sources within Northern Ireland. The Northern Ireland Mortality Study (NIMS)

links the 2001 Census returns for the whole of the enumerated population (approximately 1.6 million individuals) to subsequently registered mortality data.

The NILS and the NIMS were set up in 1996 to allow investigation of the changing profile of health and socio-demographic characteristics. The datasets provide a unique potential to improve our understanding of disadvantage and inequalities across the lives of individuals in Northern Ireland, and allow for changing circumstances to be investigated.

This poster will give an overview of how the NILS and NIMS are constructed, datasets that are included, and the sample sizes available for studying particular populations of interest. Some examples of the types of research the data have been and can be used for will also be highlighted, demonstrating the exciting research potential offered by the NILS/NIMS, which is open to all researchers.

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The UK Longitudinal Studies.

Kate Johnson, Office for National Statistics

This poster is designed to compare the Office for National Statistics Longitudinal Study (ONS LS), the Scottish Longitudinal Study (SLS) and the Northern Ireland Longitudinal Study (NILS). Each of these studies links census data, vital event data (for example birth and death data) and administrative data, in order to facilitate longitudinal analysis of a sample of the population they cover.

The ONS LS started in 1974 and covers approximately a one per cent sample of the population of England and Wales. This includes data from the 1971, 1981, 1991 and 2001 Censuses. It was originally started to investigate occupational mortality and to improve fertility data. The study includes more than 500,000 records from each census.

The SLS has data from the 1991 and 2001 Censuses on approximately a five per cent sample of the population of Scotland. This gives more than 250,000 records at each census.

The NILS currently includes data from the 2001 Census and looks at approximately a 28 per cent sample of the population of Northern Ireland. This gave more than 500,000 records in 2001. It was started in order to provide a longitudinal analysis tool for the Northern Irish population having not been included in any other longitudinal study.

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Longitudinal study of working women and changes in jobs in Bangladesh.

Nashid Kamal, North South University Bangladesh; Gareth Ambler, University College London; Rumana Z. Omar, University College London

Bangladesh enjoyed a tariff free multifibre agreement with the US which was supposed to expire in December 2004 and there was a prediction that many garment workers would be jobless and join informal sectors such as domestic work or sex work. This longitudinal study was undertaken during the period of June 2004 to Dec'05. The objective is to look at the effects of post MFA on the working women in the urban slums of Dhaka and also identify correlates of change in employment. The study followed 300 women from the urban slums of Dhaka collecting data in four equally

spaced rounds. These women are from four categories garment worker, sex worker, domestic worker and housewife, the latter being the reference category. Logistic regression (for clustered data) was used to model the outcome variable 'change in employment' on various correlates. The study finds that, 95% women remained in garment work and none went to sex or domestic work, although some became housewives. This implies that post MFA employment change was not significant and the findings match the national situation. Most factories diversified themselves and shifted to knitwear. Further diversification of the garment industry is recommended along with creation of more jobs.

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Socioeconomic and demographic factors associated with anaemia in women in the Democratic.

Ngianga II Kandala(Shadrack), Amos Channon, Nyovani Madise, University of Southampton

Anaemia is a worldwide public health problem. Globally it is estimated that 41.8% of pregnant and 30.2% of non-pregnant women are anaemic (WHO, 2005). Between 17% and 46% of maternal deaths in less developed countries are due to anaemia (van den Broek 2003).

Biological causes of anaemia in women have been well searched. However, there has been little investigation for its socioeconomic related factors.

We investigated the links between socioeconomic factors and anaemia in women aged between 15 and 45 years old from the Democratic Republic of Congo. The association structure suggests that maternal education is an important factor that mediates the influence of other socio-economic factors on maternal health outcomes. Beside well known related factors of anaemia in women such as pregnancy, socioeconomic factors associated with anaemia in women are education, source of drinking water, age at marriage, electricity and place of residence. The degree to which anaemia in women is explained by the mediation of socioeconomic factors is appealing and understanding the links between socioeconomic factors and anaemia in women is fundamental, so as to identify areas to which future interventions should be targeted.

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Consultation on the 2011 SARs microdata from the Census.

Selvino de Kort, Jo Wathan, Ed Fieldhouse, University of Manchester

This poster presentation will set out our proposals for the 2011 Samples of Anonymised Records (SARs) and provide an opportunity to provide feedback and suggestions. The SARs are a set of individual level data files produced from the 1991 and 2001 census. The SARs are characterised by their large sample size (up to 5% of the census), large number of variables and complete UK coverage. The data are anonymised to protect the identity of the individuals. Their unique individual level structure allows for multi variate and multi level analysis and therefore provides reserachers with powerful analytical tools. Consequently, the SARs are widely used by researchers from distinct fields such as sociology, economy, geography and the health sciences. It is anticipated that the 2011 census will also provide SARs and this will allow assessment of the state of society at the beginning of the 21st century. Currently, a specification of all variables in the 2011 SARs is in preparation and will be presented to the Office for National Statistics prior to the census.

Consultation with users will inform the specification about the demand for detail in certain variables. This is therefore the time to provide suggestions and have an impact on an invaluable data source that will be available to social scientist in the near future.

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A systematic review to determine the effectiveness of interventions designed to prevent overweight and obesity in pre-adolescent girls.

Joanna May Kesten, Noël Cameron, Paula Griffiths, Loughborough University

Background: Childhood overweight and obesity is recognised as an increasing health problem worldwide.

Aims: To determine the effectiveness and sustainability of interventions designed to prevent overweight and obesity in pre-adolescent girls.

Subjects & Methods: The papers included in this review were those studying children (must include girls) aged 7-11 years (or inclusive of this age range) from any country and any ethnic background. The included interventions lasted at least 12 weeks and modified a combination of nutrition, physical activity levels, knowledge, attitudes or health related behaviours associated with the development of childhood overweight and obesity. Quality assessment of the studies used a quantitative quality assessment tool. Effect sizes were calculated where the study results permitted and were assessed according to Cohen's classifications of small (≤ 0.2), medium (0.3-0.7) and large (≥ 0.8) effect sizes.

Results: In total 49 studies met the inclusion criteria of which 24 were RCTs, 20 were controlled trials and 5 were cohort pre and post trials. There were 13 weak, 20 moderate and 16 strong quality studies. 29 studies were considered short term (3 to 12 months) and 20 long term (≥ 12 months). Effect sizes were calculated for 33 out of 49 studies and ranged from 0 to 2.52. Using only changes in BMI and other weight related variables, there were 17 small, 12 medium and 2 large effects sizes.

Conclusions: There is the potential for interventions aimed at pre-adolescent girls to reduce the risk factors associated with childhood overweight and obesity, although the sustainability of the effects of such interventions is less clear.

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Russian demographic policy at the municipal and business level.

Vladimir Kozlov, Moscow Lomonosov State University

The poster is devoted to the peculiarities of the demographic policy carrying out in municipal and corporate level in Russia. The main goal of this work is to find the place of municipals and corporations in the whole Russian federal system of demographic policy. The author tries to find the real demand on the demographic policy in the municipal and business level and to throw light on the mechanisms of realization for different programmes carried out by local authorities together with business. The project can be logically divided into three main parts.

The first part is devoted to the role of local authorities in the Russian model of federalism. I will observe the social and demographic programmes realized in municipal level: the responsibility of local authorities, municipal financial sources and the ways and prospect of mentioned social and demographic programmes realization.

The second part describes the realization of corporate social and demographic policy, especially in monocities. The author tries to analyze the density and efficiency of such programmes. The information about the role of corporate social programmes for the local population is received from the Gender and Generation Survey (Wave № 2004). The information about variety of social

programmes is found in the materials of The Russian Union of Industrialists and Entrepreneurs and The Russian Managers' Association.

The third part focuses on joint demographic programmes of the local authorities in cooperation with local business organization (so called private-public partnership). It is also devoted to the possibility of the local community inhabitants to participate in the process of municipal level of social, demographic or family policy planning, designing and monitoring. One of the information sources will be contained in the results of the UNICEF Project "The Child Friendly Cities in Russia".

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Is Bangalore the new New Delhi? Moving decisions of North East Indians.

Aparna Krishnamoorthy, Anahu Subash, Ankur Verma, Suchandra Chatterjee, Wellingkar Institute of Management Development & Research

Bangalore the silicon valley of India has witnessed phenomenal growth over the last decade. To participate in this IT boom people from various parts of India migrated to Bangalore leading to an unprecedented expansion of the city. Among these new entrants into Bangalore one remarkable feature was increased numbers of people from the North eastern states of India which is very unlike their usual preferred migration destination –New Delhi. The objective of this study is to gauge the reasons behind the change in the migration pattern of north eastern Indians who in increasing numbers are moving to the city of Bangalore. We also seek to determine the legitimacy of a popular belief in India that north eastern Indians hold sway in the fast developing retail and hospitality industry in India. Our preliminary primary data has revealed that about 68 % of the respondents interviewed so far have never considered moving to cities other than Bangalore. All the respondents reported 25% - 400% increases in their monthly expenses post their move to Bangalore and yet are not put off by the increased cost of living. About 44% of the respondents faced some form of discrimination such as being called "Chinkis" (those who look like Chinese) a colloquial form of addressing people with Mongoloid features. We hope that at the end of this study we are able to determine the factors that act as influencers in the case of moving decisions of north eastern Indians to the city of Bangalore.

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Place attachment and well-being: how older Antillean immigrants in the Northern Netherlands experience moving between cultures.

DR Lager, University of Groningen

This poster presentation is part of a research that explores how older Antillean immigrants in the Northern Netherlands experience their well-being in relation to place attachments (see the 'Ageing' abstract from Louise Meijering and Debbie Lager). It has been argued that how one experiences a relocation has influence on one's well-being in a positive or negative way (Brown & Perkins, 1992). Attachment to place is especially significant for older people because it is part of their identity and gives them a sense of continuity. A move can disrupt this sense of continuity and may negatively influence how they experience their well-being.

The aim of this poster is to explore how older Antillean immigrants experience travelling between the Dutch Antilles and the Netherlands and how this influences their well-being. A variety of moves/travels will be discussed, such as returning to the Antilles to visit family or to live there again, the move to the Netherlands for work, study or retirement and possible future moves. I use eight qualitative life-history interviews with older Antillean immigrants in which their experiences with adapting between the Netherlands and the Antilles are addressed. I expect that persons who

experience the moves they made in their lives in a positive way will be better able to adapt to new places and people and that this will influence their well-being positively (and vice versa).

Reference:

Brown, B.B., & Perkins, D.D. (1992) 'Disruptions in Place Attachment', in: Altman, I. & Low, S.M.. Place Attachment, New York: Plenum Press, pp. 139-163.

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How effective is traditional contraceptive use in Moldova? Evidence from the DHS contraceptive calendar.

Mark J. Lyons-Amos, Gabriele B. Durrant, Sabu S. Padmadas, University of Southampton

Moldova, consistent with other Eastern-European post socialist republics, demonstrates sub-replacement fertility despite a high traditional contraceptive prevalence and relatively low abortion use. Traditional methods are usually associated with high contraceptive failure rates- though this is not reflected in Moldovan fertility. This study therefore evaluates contraceptive failure-rates in Moldova, to determine whether seemingly conflicting contraceptive-use and fertility patterns result from unusually effective traditional method use or from other influences. Data are drawn from the 5-year contraceptive calendar of the 2005 Moldova Demographic and Health Survey, which provides 416433 woman-months of information on contraception, pregnancy, births, terminations and sexual activity. We use a competing-hazard-event-history model to estimate the monthly probability of contraceptive failure, while accounting for contraceptive discontinuation and abandonment. The model compares contraceptive failure-rates among natural and modern method users, while controlling for proximate fertility determinants (sexual activity, lactation, fecundity) as well as socio-economic variables including education, ethnicity and contextual effects.

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The effect of changes in proximate determinants and family-building behaviours on pace of fertility decline in West and East Africa.

Kazuyo Machiyama, Andy Sloggett, John Cleland, London School of Hygiene & Tropical Medicine

Following Kenya, Zimbabwe and Namibia, most sub-Saharan African countries begun fertility transitions since the 1990s. However, the pace of decline is much slower than in other developing countries and some countries are claimed to have stalled the declines in recent years. Moreover, the pace and the patterns of decline seem markedly varied within the region. Despite the diversity, few studies have compared mechanism of patterns of recent fertility decline in sub-Saharan Africa. This study aims to explore the effects of changes in proximate determinants on patterns of fertility decline in Cameroon, Ghana, Kenya, Rwanda, Senegal and Tanzania by women's educational attainment and residence using Stover's model of proximate determinants revised from Bongaarts' framework. Preliminary results showed much lower contraceptive prevalence and postponement of marriage in the West Africa countries regardless of relatively lower educational attainment. Further analysis will shed light on varied patterns of fertility decline in Sub-Saharan Africa.

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Childbearing intentions of Polish men and women living in Poland and in the UK: progression to the second child.

Joanna Marczak, London School of Economics

This poster will be related to an ongoing PhD project, with an overall aim of the research to explore the rationale behind, and justifications for intentions to have a second child among Polish men and women living in the UK and Poland. Low levels of progression to the second and higher parities have contributed to very low Total Fertility Rate in Poland, which leads to the decline in the size of Polish population and an increase in old age dependency ratio. Low fertility is combined with high childbearing intentions; however, there is no in-depth analysis of factors that influence these intentions and reasons why people fail to meet them. Since 2004 there has been a considerable raise in births to Polish born women in the UK; in 2008 they were 2.3 percent of all childbirths. This has led to claims that Polish migrants have contributed to the baby boom in Britain, yet there is no research on their fertility trends. The project will look at fertility intentions of men and women who share the same socioeconomic and cultural background but who live in different countries to see whether diverse environments contribute to different intentions, if migrants' intentions varied before they migrated and whether factors that underpin childbearing intentions differ between genders. The PhD covers mixed methodology; quantitative analysis of Polish and British Labour Force Surveys and in-depth interviews with men and women who already have one child and who live in Krakow and London.

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Family and fertility: Kin influence on the progression to a second birth in the British Household Panel Study

Paul Mathews, Rebecca Sear, London School of Economics

It is often highly adaptive for organisms to aid and encourage reproduction in their relatives. Particular features of human female life history, such as short birth intervals and the early cessation of female reproduction (menopause), are argued to be evidence that humans are obligate 'cooperative breeders', and require assistance from relatives to successfully reproduce. Human behavioural ecologists have so far focussed on measuring the effect of relatives on fertility in natural fertility populations. Our previous work found that having relatives in her close social network increases the risk of a woman's first birth, using six waves of the nationally representative British Household Panel Study. We now look at whether kin influence the risk of a woman's second birth in the same dataset. Discrete-time event history analysis is undertaken to determine whether the kin orientation of her social network, operationalised as the number of relatives who are within a woman's three closest non-household friends, affects her progression to subsequent births. Secondly, we analyse whether women whose relatives provide childcare have faster parity progressions. Our provisional results show that both having a kin-oriented social network and having relatives providing childcare significantly increase the risk of a second birth, controlling for numerous socio-economic confounders. We conclude that encouragement and emotional support from relatives may be as important as practical support in the influence that relatives have on fertility.

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The ONS Longitudinal Study

Jim Newman, Office for National Statistics

The ONS Longitudinal Study (LS) contains linked census and vital event data for one per cent of the population of England and Wales. Information from the 1971, 1981, 1991 and 2001 Censuses has been linked across censuses and with vital events data such as births, deaths and cancer registrations. Data from event registrations from 1971 to 2008 are now available on the LS database.

The LS was set up in 1974 to address problems with the adequacy of occupational mortality data, and the lack of longitudinal fertility data, but since then it has been used to address a wide range of other research questions.

The longitudinal nature of the study permits life-course and inter-generational analyses. Individual-level information enables the use of multivariate statistical techniques.

This poster will give an overview of how the LS is constructed, the key data it contains, the sample sizes available for studying particular populations of interest and some examples of the types of research it has been and can be used for. It is hoped that this overview will help researchers decide whether the LS is appropriate for their research.

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The concept of quality of life as seen through the European Community Household Panel, microdata used for Spain, year 2000, Wave 7.

Ana Zylbermenc Pascual, University of Wageningen

Quality of life is a multifaceted concept which is primordially associated with health and the self-perception of one's health (Walker, A., 2007). Yet, in this research work, QoL of the widowed population will be addressed from a different perspective, the three indicators that are analysed are: the household conditions, the internal and external (environmental) problems that affects them, the essential equipment of the household, and the material/non-material (social relations) goods which the person interviewed owns. The objective variables used to measure these indicators will be contrasted with the subjective variables, i.e, with what difficulties does he/she make ends meet at the end of the month and the person's opinion on his/her household condition. All of the variables used have also been analysed by civil state, sex, and level of income (or poverty rate, i.e, from the least poor to the very poor). This research work is based on wave 7-2000, European Community Household Panel (ECHP) micro-data analyses for Spain; thus the income level or poverty rate is based on the household disposable income as measured by the OECD-modified equivalence scale used by EUROSTAT. The questionnaires used for that year have been the adult, and the household, treated nationwide, downloaded from the National Institute of Statistics, INE, Instituto Nacional de Estadísticas, <http://www.ine.es>.

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Immigrant workers on the French interwar labour market

Malgorzata Radomska, Max Planck Institute for Demographic Research

In the interwar Europe, France is the leader of immigration countries. In order to supply the necessary amount of foreign workers to French industry and agriculture, its government is conducting bilateral agreements with such emigration countries, like Italy, Poland, Czechoslovakia, Belgium, Yugoslavia or Romania, where rules concerning workers recruitment and their social protection in France are laid down. However, the content of these agreements varies from country

to country, what means that foreigners differ in their status and protection, as negotiated by their country of origin.

The objective of the poster is to overview how different content of foreign workers bilateral agreements might influence the entrance into French labor market and tries to answer the question why Poles, next to Italians, became the most favorite workers by French employers. Historical data of French ministers have been taken: the Ministry of Agriculture and the Ministry of Industry on market entrance and exit of foreigners by nationality, enriched by archive sources of Le CARAN (Centre d'accueil et de recherche des Archives nationales) on immigration to France for the time period 1918 – 1939.

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The impact of kin on female fertility: a systematic review

Rebecca Sear, Paul Mathews, London School of Economics and Political Science

Fertility decline is a near universal phenomenon, but the reasons why people reduce their fertility remain a puzzle. Recently it has been suggested that changes in kin networks may help explain changing reproductive behaviour. As societies modernise, kin networks break down, which reduces both the practical support available to mothers in raising children, and affects reproductive norms. Here we present the results of a systematic review of studies which have investigated the impact of kin on female fertility: including age at first birth, length of birth intervals, total fertility and fertility preferences. 85 appropriate studies were found which correlated some measure of kin presence with a fertility outcome. Broadly speaking the presence of kin is more likely to promote than restrict childbearing, suggesting that a loosening of kin ties may be a plausible explanatory factor in fertility decline. However, the precise effects of kin vary between the type of kin studied (i.e. mothers, fathers, mothers-in-law), by how kin measures are defined in the study, by the type of fertility outcome measured and between different environments. For example, the presence of a father in the household generally delays the onset of childbearing for women in developed societies but accelerates it in high fertility societies. While this review supports the hypothesis that kin are important for fertility behaviour, more research is needed to determine their pathways of influence.

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Geographic variation in cause and condition-specific mortality rates for diabetes mellitus.

David W. Smith, London School of Hygiene & Tropical Medicine; Stephanie L. McFall, University of Essex; Benjamin S. Bradshaw, University of Texas

Diabetes was a cause in 8.9% of deaths in the United States (US) in 1999-2001. The prevalence of diabetes was 5.9% among adults in 2000. Virtually all deaths caused by diabetes occur among diabetics. The death rate in the US in 1999-2001 among diabetics due to diabetes as the underlying cause was 52.9 per 10,000 and for any mention it was 162.7. We examine the usefulness of state death rates due to diabetes among diabetics among states for adult males, females and both sexes. Crude rates were computed from counts of deaths and from a national system of state health surveys. The estimated age-sex composition of diabetics in the US was used to standardize state death rates. The crude rates for diabetes as an underlying cause varied from 36.8 per 10,000 to 89.8 and from 117.5 to 271.9 for any mention of diabetes as a cause. The range of standardized rates was similar. Rates were only slightly higher for females than males. Substituting the much smaller population of people at risk for the total population yields useful information about the burden of disease. The crude and adjusted death rates for individual states are statistically stable and useful for

health policy. Using the estimated diabetic population as a standard keeps the standard rates on a similar scale to the original rates. We conclude that death rates can be informative for relatively small areas. Modified methods of estimation, such as shrinkage estimators, could enhance their usefulness.

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Using cohort change ratios to estimate life expectancy in populations closed to migration: A new approach.

David A. Swanson, University of California Riverside; Lucky M. Tedrow, Western Washington University

As noted in the UN Manual, Methods for Estimating Adult Mortality from Census Data (United Nations (2002: 5), "Census survival methods are the oldest and most widely applicable methods of estimating adult mortality ... (and can) provide excellent results (for) populations that experience negligible migration ... " The general approach can be used only for populations that are closed to migration, or approximately so, but there populations meeting this requirement that are of interest. The world as a whole meets this requirement, for example. Countries with populations closed to migration include North Korea and Burma, among others. Other such populations are found in the historical record - the former Soviet Union, Albania from 1950 to 1980, and the Peoples' Republic of China from 1950 through 1970, for example. Still others may be defined by race and ethnicity or other 'rules' of membership (e. g., Indigenous Populations in Australia and Canada, Native Hawaiians). The same UN manual shows a procedure for developing life expectancy at age x (where $x > 0$). In our presentation, we propose an alternative procedure to the one shown by the UN that allows one to calculate e_x (including e_0) in a more direct manner from cohort change ratios. We discuss the benefits and limitations of our approach and compare life expectancy estimates derived from our approach to those derived from the approach of the UN and others, where available. As well as some nuances and cautions, we discuss benefits in using this approach to estimating life expectancy, including the ability to develop estimates of average remaining life at any age starting with birth. We find that the technique appears to be worthy of consideration for use, given the limitations discussed.

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Residential histories across the life course and place of death.

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Marked inequalities in mortality rates between areas have been persistent in Britain over long time periods and in recent evaluation of regeneration areas rates of death have proven to be more resistant to change than other social indicators. Mortality rates in areas may be resistant to short-term policy initiatives in part because they are shaped by patterns of mobility over long time periods. This study constructed a detailed dataset of residential histories across the life course to describe how people come to be located at their place of death and to assess the influence of past mobility upon current mortality geography. An age-and sex-structured random sample of 250 people dying in the case study area of York was selected from death registrations in 2000/1. Data linkage was used to identify addresses of the deceased in birth, marriage and electoral registers, BT phone books, street and trade directories and other sources. The distance between place of birth and death, time resident in York and at final address and how migration patterns varied with the characteristics of individuals and their neighbourhoods were explored. Preliminary analysis finds that the majority of those dying in York were in-migrants, most of the deceased had however been

born in Yorkshire. While the majority of the deceased were in-migrants to the city residential movements determining place of death had commonly taken place long before death. Among those identified in the electoral register mean length of time resident at final address was found to be approximately 20 years.

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Low take up of HIV prevention and treatment services following counselling and testing among pregnant women in Northern Tanzania.

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Background: A rapid expansion in numbers of trained counsellors in Tanzania, means that many more Ante-Natal Clinics (ANC) offer HIV counselling and testing, and information about PMTCT - such services are available in almost all urban ANC and about 40% of rural ANC in Mwanza region. There is a high uptake of provider initiated testing in ANC, with fewer than 2% of pregnant women declining an HIV test. However, the proportion of pregnant women diagnosed as HIV-positive who go back to these clinics at delivery time to receive preventative treatment for mother and child is unknown.

Methods: A reproductive health survey of pregnant women attending 15 antenatal clinics in Mwanza region was conducted in 2008. Women were interviewed prior to being offered HIV testing and information about PMTCT services. 2,162 of the women were followed up and re-interviewed postpartum in 2009, including 175 HIV-positive women. 7 of these women had experienced a miscarriage or stillbirth so would not have needed services for their newborn children.

Results: Of the 168 HIV-positive women who had a live birth, only 41(24%) reported receiving preventative drug treatment for herself and her child at delivery; 2(1%) reported obtaining drugs only for the child; 6(10%) only received drugs for herself; and 109(65%) did not receive any treatment at all. Location factors were most commonly reported as reasons for not accessing the services (too far away, no transport, not enough time and too expensive to get there), so that only 19% of rural women had full access to mother and child treatment, compared with 29% of urban women.

Conclusion: Many health facilities with ANC services are rarely used by women for labour and delivery. Women who deliver at home will need more encouragement to return to collect the drugs, or to be offered a home visit to deliver the drugs.

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Direct evidence of recent declines in HIV prevalence and incidence in a rural population open cohort in Northern Tanzania, 1994-2007.

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High quality data from a community-based HIV cohort study was used to examine trends in HIV prevalence and incidence since 1994.

Methods: Kisesa cohort study conducted 21 rounds of household based demographic surveillance and 5 rounds of HIV sero-survey (adults 15+) between 1994 and 2007. HIV testing was anonymous, and results linked to demographic data using coded numerical identifiers. Prevalence change in adults aged 15-44 is broken down into components: epidemiology (new infections and deaths); mobility (in- and out- movement of infected and uninfected individuals); and ageing (attaining ages 15 and 45). Uncertainty bounds are calculated to allow for possible non-participation bias. Individual sero-conversion times are estimated between last negative and first positive test dates using interval censoring methods. Survival analysis is used to compute cumulated probability of infection based on incidence rates for comparison with observed prevalence.

Results: 19,105 adults were interviewed and donated blood specimens for HIV testing in at least one of the five serological surveys. Sero-survey participation rates ranged from 67% to 75%. HIV prevalence for both sexes increased from 6.0% (5.3 to 6.4) in 1994, to 6.7% (6.4 to 6.9) in 1997, peaking at 8.3% (7.8 to 9.3) in 2000, before falling to 7.6% (6.9 to 8.3) in 2004, and then to 7.1% (6.4 to 7.8) in 2007. Prevalence remains higher in women than men, and lower in remote rural areas than in the trading centre, but the differentials are narrowing. Incidence peaked between 1997 and 2000, at 1.2% (1.1 to 1.3) slightly earlier for women than men. The ensuing decline has been much stronger in the trading centre than in remote rural areas.

Conclusion: Cohort data provide solid evidence for dating prevalence and incidence trends by social, behavioural and demographic factors. Incidence measures are particularly useful in the era of antiretroviral treatment.

Iterative Proportional Fitting: History and practice.

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For a relatively simple and intuitive algorithm, Iterative Proportional Fitting (IPF) has a surprisingly convoluted history. Although several authors have attempted to give background information on the method, these accounts of the development of IPF have invariably been only partial. As a method for estimating contingency table frequencies based on limited and/or sampled data, IPF is particularly useful in population and especially census data research, as well as being generally applicable in a wide range of fields ranging from engineering, anthropology, transportation research, economics to information and computing. The theoretical development of statistical analysis of contingency tables has also led to this same algorithm and the related mathematical proofs, firmly embedding IPF in statistical theory, but often shrouding it in inaccessible language. The proposed poster is uniquely comprehensive in describing IPF both through its historical time-line and through non-technical graphical explanations of the statistical procedure. This allows a schematic overview of the chronological development and the dozen 'reinventions' of the algorithm, classifying the many terminologies usually used synonymously. The use of mosaic plots in both two and three dimensions represents a unique tool for visualising the procedure in an

accessible way without having to skirt over the underlying theory of log-linear models and the principle of entropy maximisation. The medium of the poster allows the side-by-side presentation of the sequential and hierarchical development of IPF applications alongside graphical illustrations of the algorithm using data from the 2001 UK Census Individual Sample of Anonymised Records.

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