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## THE RELATIVE IMPORTANCE OF GENETIC AND ENVIRONMENTAL INFLUENCES ON AGE AT MENOPAUSE.

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Knowledge of the factors that influence the timing of menopause has important clinical implications. Early menopause is associated with an increased risk of cardiovascular disease, osteoporosis and ovarian cancer, whereas delayed menopause is associated with a higher risk of endometrial and breast cancer. Environmental factors, except for tobacco smoking, have failed to show independent influence on the age at natural menopause. Family history has been implicated as a predictor of early menopause. The aim is to 1) quantify the relative importance of genetic and environmental influences on age at menopause, 2) explore the association between age at menopause and lifestyle factors. The data are from a study of twins reared apart and together from the Swedish Adoption/Twin Study of Aging (SATSA) and a pilot study of complex diseases, both based on the Swedish Twin Registry. The results show both genetic and rearing environmental effects as sources of familial similarity for age at menopause. Environmental factors appear to be of greater importance than genetic influences for variation in age at menopause. There were significant differences in menopause dependent on smoking status: onset of menopause was delayed for current smokers. There is a need to explore further the implications of environmental factors on age at menopause.

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## ESTABLISHING A TWIN REGISTER IN SRI LANKA

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**Background:** Nearly all Twin Registers are based in developed countries and there is no Twin Register in the developing world. **Objectives:** To initiate the process of establishing a nation-wide Twin Register in Sri Lanka by starting a volunteer register first and working towards a population based register. **Methods:** Regular news paper advertisements, feature articles, radio talks, and television programs were used to publicise a competition for twins, their parents/relatives and friends requesting them to participate by sending in details of twins. Competition took place from 28/3/97 for a period of 3 months. It offered prizes for 3 winners selected by drawing lots. Advertisements highlighted the objective of the competition as establishing a twin register for future research and emphasised that informed consent would be obtained for individual research projects. Although others have previously used media publicity to enroll twins in twin registers, to the best of our knowledge this is the first time that a competition was used. **Results:** 4374 Twin Pairs (Same Sex: Male 1327, Female 1610. Different Sex 1118, Sex to be verified 321); 80 Triplets (Same Sex: Male 16, Female 24. Different Sex 39, Sex to be verified 1) and 2 Quadruplets (Different Sex) have registered. The oldest Twins, Triplets, Quadruplets are 80, 46, and 5 years old respectively. 75% of Twins, 85% of Triplets, and all quadruplets are less than 25 years old. Zygosity determination will be done shortly using the questionnaire method. This will be followed by several projects. **Conclusions:** Establishing a Twin Register for research purposes is possible in a developing country.

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## PSYCHO-SOCIAL ISSUES OF ASSISTED MULTIPLE BIRTH CONCEPTION

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The study was confined to social problems arising from the conception of twins or higher order multiples following assisted conception treatments. A review of the literature revealed that multiple pregnancy was frequently described as a "side-effect" of these treatments which contributed significantly to the professional and social evaluation of the programs. The problems described were categorised to determine those which could be addressed within the confines of a voluntary organisation.

The material recommended by the Australian Fertility Society for inclusion in packages available to parents considering assisted conception treatments was reviewed to determine the nature of that specifically directed to multiple birth. This was considered to be inadequate in regard to disclosure of the frequency of conception, risk factors of pregnancy and birth and the impact of a multiple birth on the family. Women participating in IVF and GIFT programs were interviewed to determine the influence of the multiple birth information over their decision to participate in the treatment. This was found to be minimal.

To compare Australian material with that available from other countries a search of the literature for information about selective reduction of multiple foetus was undertaken, focusing on that available to couples to assist them in their decision making. The paucity of information available initiated a survey among couples who had faced this decision to determine the degree of disadvantage this lack incurred. The outcome of the survey precipitated interviews with medical and paramedical personnel and mothers who had chosen either to reduce or not to reduce the multiple pregnancy. These interviews resulted in the production of literature for the use of both Fertility Clinics and inquiries directed to the Australian Multiple Birth Association for information about the psycho-social aspects of assisted conception treatment and those of selective reduction.

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## AGE AND GENDER DIFFERENCES IN GENETIC AND ENVIRONMENTAL FACTORS FOR SELF-RATED HEALTH

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The more Self-Rated Health (SRH) is proved to be a predictor for future health status and mortality the more important it is to understand what constitutes SRH. The aim of this study was to evaluate the factors of importance for SRH in a sample of 554 pairs of twins, monozygotic, dizygotic, like- and unlike sexed. Specific research questions are; 1) What are the sources of individual differences in SRH? 2) Are there gender and age differences in genetic and environmental influences on SRH? The inclusion of opposite sexed twins facilitates distinguishing between differential heritability in males and females versus gender-specific genetic and environmental effects.

Older participants tend to rate their health less positively than those below 55 years of age and there is an increase in total variance with age. Most of the variation in the younger cohort (17-54 years) is attributable to the influence of non-shared environments. Genetic variance was substantially greater in the older cohort (55-82) for both men and women, however, the increase in total variance for women also reflected an increase of non-shared environment. No significant gender differences were found. Common findings of mean differences between gender do not seem to reflect gender differences in variance. These findings, based on cross-sectional data, suggest that SRH must be considered in the context of an individual's age.