

Newsletter - December 2015

It is nearly 20 years since we started recruiting UK women to participate in the Million Women Study. With continued funding from the Medical Research Council and Cancer Research UK, the study is providing answers to many questions relating to women's health. We are most grateful to our participants and collaborators for their continued support.

Million Women Study investigations published in scientific journals since October 2014

Information provided by the MWS participants has been instrumental in our research to help clarify some of the uncertainties about risk factors for cancers and vascular disease in women, and provide novel insights into potential causes of these diseases. Summaries of all published studies are available on the study website (www.millionwomenstudy.org), but here are a number of our recent findings:

Hormone replacement therapy (HRT), oral contraceptives, and cancers of the ovary and the endometrium

MWS investigators combined efforts with other scientists in a global collaboration. HRT use increases the risk of ovarian cancer, with use for five years from around age 50 years associated with about 1 extra ovarian cancer per 1000 users. In contrast, oral contraceptive use gives long term protection against endometrial cancer, and oral contraceptives may have prevented 200,000 cases worldwide in the last 10 years alone.

Beral V, et al. **Lancet 2015;385:1835**

Allen N, et al. **Lancet Oncol 2015;16:1061.**

Risk factors for 'rare' cancers

Our investigations into less common cancers suggest that oestrogen-only HRT use is associated with increased risks of brain tumours, but the risks are small (2 extra cases per 10,000 users over 5 years). We also identified factors associated with increased risk of anal cancer, including smoking, and a history of cervical precancer.

Benson VS, et al. **Int J Cancer 2015;136:2369**

Coffey K, et al. **Br J Cancer 2015;112:1568.**

Determinants of heart disease and stroke

Physical activity is known to be beneficial to health. We found that at moderate levels, it was associated with lower risks of heart disease and stroke; but among women who were already active, increasing its frequency does not seem to

confer further reduction in risks. It has also been thought that participation in social activities may prevent heart disease. In the MWS, those who participated in social activities were more likely to be non-smokers, physically active, and have better self-rated health, which largely explained why they had a lower risk of heart disease than those who do not engage in social activities.

Armstrong ME, et al. **Circulation 2015;131:721**

Floud S, et al. **Eur J Prev Cardiol 2015 (E-pub)**

Risk factors for dementia

A new area of research for the study is dementia. With such a large, long term study we hope to add to what is known about lifestyle risk factors.

Blood samples and genetic studies

We continue to collect blood samples for some women in the study, for genetic studies of breast cancer and of vascular disease.

Please let us know if you have any comments or suggestions. Contact: Lynden Guiver lynden.guiver@ceu.ox.ac.uk

Study website: www.millionwomenstudy.org