

ECOnews – Friday 8 May

ECO in the media

There were many more articles in the media on the WHO Populations Trends session from Wednesday. Also in the news is the session on the randomised controlled trial of wine on diabetes control (*T8:OS1.5: I Shai and colleagues*).

Two posters have also been covered in the press: BMI and body image in young children, (*Sahota and colleagues T7:PO.002*); and being obese affects chances of finishing school, (*Hagman and colleagues, T6:PO.013*).

Here are some of the stories:

Most British and Irish People Will Be Overweight or Obese By 2030

Time Magazine, USA <http://time.com/3849742/obesity-overweight-europe-britain-ireland-diet/>

Glass of red wine a night could help people with diabetes manage cholesterol and protect their hearts, says study

The Independent, UK <http://www.independent.co.uk/life-style/health-and-families/health-news/one-glass-of-red-wine-a-night-could-help-people-with-diabetes-manage-cholesterol-and-protect-their-hearts-says-study-10230016.html>

Nearly one in four British children overweight or obese, claims study (plus child body image)

The Guardian, UK <http://www.theguardian.com/society/2015/may/07/one-quarter-british-children-overweight-obese-study>

Researcher Profile – Dr Maira Bes-Rastrollo, University of Navarra, Spain, and Carlos III Institute of Health, Spain

Oral session T6/T7:OS2.1 and Poster T7:PO.051



Above: Dr Maira Bes-Rastrollo, Spain

Q: Tell us how you first became interested in obesity research?

M B-R: I became interested in obesity because the research project of my thesis was based on the validation of self-reported anthropometrics and the assessment of potential predictors of weight gain in a Mediterranean cohort: the SUN Project.

Q: Much of your work has been on the Seguimiento Universidad de Navarra (SUN) project cohort. Who first had the idea to follow up university graduates and their risk of developing obesity?

M B-R: The SUN Project was founded by Professor Miguel A. Martinez-Gonzalez, my thesis advisor following the methodology of the big American cohorts such as the Nurses' Health Study and the Health Professionals Follow-up Study. Because of economic feasibility, the SUN Project is dynamic; it is a multipurpose prospective cohort permanently open. Currently, we have more than 22,400 participants involved in the project.

Q: The study you are presenting at this year's ECO shows a lower risk of obesity for those people living at higher altitude. Do you think it is worthwhile for governments around the world to consider altitude in developing villages, towns and cities, and encourage people to live at a higher altitude?

M B-R: Before considering taking action in relation to obesity and altitude, our results should be confirmed in other prospective and intervention studies. I am from the Costa Brava coast in Catalonia, and I am sure that living on the coast also has advantages!

Q: The SUN cohort has also produced some very interesting studies on bread and yoghurt consumption. What studies do you have planned for the future?

M B-R: We are working on environmental factors. We have recently published two studies showing that dietary polychlorinated biphenyls (PCBs) intake is a potential risk factor for obesity and hypertension.

Q: How do you see the current situation regarding obesity in Spain? Are there any signs of hope that things are improving there?

M B-R: According to the last results of Aladino 2013, a project conducted by the Ministry of Health with a representative sample of Spanish children aged 7-8 years, there is stabilisation in the prevalence of overweight and obesity, even with a downward trend. This tendency should be confirmed with more data analyses in the future. Therefore, it seems that there is a sign of hope. Nevertheless, we should not lower our guard. The strategy to prevent obesity in Spain (NAOS strategy) and the research resources for the study of obesity, such as the Research Network on Obesity Study (CIBERObn) should be promoted and maintained.

Q: What one thing do you think could be the most important to prevent, and eventually reverse obesity across Europe and the world?

M B-R: In my opinion, it is crucial to promote a healthy diet and lifestyle with upstream and downstream measures. Follow a healthy and varied diet, with plenty of fruits and vegetables, drinking water, and practice sports should be encouraged for children, adolescents, adults, and elderly populations. We do not forget that this lifestyle needs to be affordable for everyone. Therefore, proper public health policies should be put in place. The health of European citizens should be one of the first goals for politicians and it should be more important than the profits of big companies. As Gerard Hasting wrote in the *BMJ* in 2012, and it is still valid, corporate power is a public health priority. At the same time, we cannot afford ourselves the luxury to arrive late in terms of public health.

Q: What areas of obesity research do you find the most interesting?

M B-R: As an epidemiologist, the areas related to epidemiology and public health. To identify within a free living population those factors related to the risk or prevention of obesity in order to have enough evidence to consider public health measures at all levels of action: individual, local, regional, national, and global, is one of my passions.

Q: Are you planning to attend any other conferences this year? If so which ones?

M B-R: Yes, I will be in the 12th European Nutrition Conference, FENS2015 in Berlin.

Today's Plenary Sessions

Track 2: Molecular mechanisms linking inflammation and adipocyte de novo lipogenesis to insulin resistance in obesity

Dr Michael P Czech, University of Massachusetts Medical School, Worcester, MA, USA
Forum Hall, 8.30-9.15

Track 5: It's a parental responsibility

Dr Claude Marcus, Karolinska Institutet, Division of Pediatrics, Department of Clinical Science, Intervention and Technology, Stockholm, Sweden.
Forum Hall: 15.00-15.45

Other Highlighted Sessions

Oral Session:

***T6/T7:OS2.1 - Living at higher altitude and incidence of overweight/obesity:
Prospective analysis of the SUN cohort***

Dr Maira Bes-Rastrollo, University of Navarra, Spain, and Carlos III Institute of Health, Spain.

North Hall: 11.30-11.45

This study shows that living at a higher altitude (above 456 metres) results in a 13% lower risk of becoming overweight or obese compared with living at a lower altitude (124 metres and below). The research, led by Dr Maira Bes-Rastrollo and Professor Miguel A. Martinez-Gonzalez, was conducted at the Department of Preventive Medicine and Public Health of University of Navarra (Spain), part of CIBERObn (Carlos III Institute of Health) and IDiSNA Research Institute.

The Seguimiento Universidad de Navarra (SUN) project is a dynamic, prospective, multipurpose cohort of Spanish university graduates with a retention rate of 90%. The authors included in this new study 9,302 participants free of overweight/obesity at baseline. In the baseline questionnaire participants reported their postal code and the time they had been living in their city/village. The altitude of each postal code was estimated according to data from the Spanish National Cartographic Institute. People were divided into three equal groups depending on altitude: below 124m (low); 124-456m (medium) and above 456m (high).

During a median follow-up of 8.5 years, the team identified 2,099 incident cases of overweight/obesity. The results were adjusted for a wide range of factors, and showed that participants in the high group (>456 m) showed a statistically significant 13% reduced risk of developing overweight/obesity in comparison to those in the low group (<124 m).

The authors say: "Living in cities of higher altitude was associated with a lower risk of developing overweight/obesity in a cohort of Spanish university graduates." They add: "While it might not be realistic to expect everyone to move further uphill to reduce obesity levels, it is encouraging to see this effect occurred at only 450m altitude. The results are in agreement with potential biological mechanisms that are caused by hypoxia."

Poster watch

T8:PO.110: Vitamin D supplementation aids weight loss in obese or overweight people with vitamin D deficiency

This research shows that vitamin D supplementation aids weight loss in obese and overweight people with vitamin D deficiency. The study is by Dr Luisella Vigna, Foundation IRCCS Ca' Granda and Department of Preventive Medicine, University of Milan, Italy, and colleagues.

A total of 400 obese or overweight people with vitamin D deficiency or insufficiency were recruited for this study between 2011 and 2013. The cohort was made up of BMI 25-29.9 (overweight): 86 patients; BMI 30-34.9 (obesity – class I): 170 patients; BMI 35 – 39.0 (obesity – class II): 92 patients; BMI > 40 (obesity – class III/morbidly obese): 52 patients. All participants received a balanced moderately low calorie diet and were assigned to one of three groups: 1) No supplementation 2) vitamin D supplementation using cholecalciferol 25,000 international units (UI) per month 3) vitamin D supplementation using cholecalciferol 100,000 UI per month.

Six-month supplementation with 25.000 and 100.000 UI increased serum vitamin D levels, but only 100.000 allowed achievement of optimal vitamin D status. (see Fig. 1 A and B below). A significantly greater weight decrease was observed in the 25.000 and 100.000 UI groups (–3.8 kg and –5.4 kg) compared to no supplementation (–1.2 kg). Waist circumference reduction was more substantial in the vitamin D group (25.000: –4.00 cm; 100.000: –5.48 cm; no supplementation: –3.21 cm) (Fig. 2). Adjustment for age, sex, and BMI did not affect statistical significance.

The authors say: “The present data indicate that in obese and overweight people with vitamin D deficiency, vitamin D supplementation aids weight loss and enhances the beneficial effects of a reduced-calorie diet. All people affected by obesity should have their levels of Vitamin D tested to see if they are deficient, and if so, begin taking supplements.”

T6:PO.013 - High-protein diet increases risk of weight gain and death in people at high risk of cardiovascular disease

This study shows that, in patients at high risk of cardiovascular disease, a high-protein diet increases the risk of both weight gain and death. The research was conducted by the PREDIMED Investigators and led by Dr Jordi Salas-Salvadó and Dr Mònica Bulló, Human Nutrition Unit, Faculty of Medicine and Health Sciences, Pere Virgili Institute for Investigating Health, Rovira i Virgili University, Reus, Spain, and colleagues.

In their secondary analysis of the PREDIMED Trial (published in the *New England Journal of Medicine* in 2013), the authors found that higher total protein intake was significantly associated with a 90% greater risk of gaining more than 10% of body weight when protein

replaced carbohydrates, and a non-significant trend when protein replaced fat. No association was found between protein intake and increased waist circumference. Higher total protein intake was also associated with a 59% greater risk of all-cause death when protein replaced carbohydrate, and a 66% increased risk of death when protein replaced fat.

The authors say: “Higher dietary protein intake is associated with long-term increased risk of body weight gain and overall death in a Mediterranean population at high cardiovascular risk.”

They add: “At the moment, no evidence supports the use of high-protein diets as a strategy to lose weight long-term. However, there is some evidence, including our study, showing the negative affect of a high protein diet on other clinical outcomes. Regarding the role of a high protein diet in death risk it could be due to increased kidney disease, changes in glucose and insulin metabolism, and also a modulatory role on blood fat profiles.”

Next set of ECO media releases

As well as some of the material above, media releases have also been sent to journalists on the following items:

T4:PO.004

Increased bioavailability of alcohol following sleeve gastrectomy – preliminary results 3 months after surgery - Magnus Strømmen, Centre of Obesity, Dept. of Surgery, St. Olavs University Hospital, Trondheim, Norway.

More from ECOnews tomorrow

Hard to believe it, but we are now more than half way through this year’s ECO congress. In the last newsletter tomorrow, we will profile Dr Margaret Ashwell, a UK researcher dedicated to encouraging healthcare professionals to use waist-to-height ratio rather than BMI to measure adiposity and estimate cardiovascular risk.

We will also do our final media round-up for the congress.