

Summary of the 8th annual NOREPOS workshop

Malangen Brygger, Troms

26 - 27 August 2013



Written by Kristin Holvik

The 8th Annual NOREPOS workshop was carried out in Malangen Brygger in Balsfjord, with 28 participants including researchers from all NOREPOS study centers and two invited international guests: Professor **Bo Abrahamsen** from Gentofte Hospital and Professor **Peter Vestergaard** from Aalborg University.

The workshop opened Monday afternoon by this year's organizer **Nina Emaus** who welcomed everyone, and leader of the steering committee **Grethe Tell** gave a general introduction of the NOREPOS collaboration with its ongoing research projects and grant proposals.

The Tromsø group represented by professor **Nina Emaus** and PhD students presented their current projects in the Fit Futures study. The group aims to study age of peak bone mass and to which degree peak bone mass may be modified by lifestyle factors such as overweight, stress, physical inactivity, and nutrition. The data collection in Fit Futures 2, a two-year follow-up to Fit Futures 1, is recently completed. PhD student **Anne Winther** has studied predictors of BMD at age 15-19 in baseline cross-sectional data in Fit Futures 1. PhD student **Ole-Andreas Nilsen** will study longitudinal changes in BMD from Fit Futures 1 to 2. **Tore Christoffersen** is a new PhD student currently applying for funding. He will analyze longitudinal follow-up data from FF1 to FF2, its association with birth weight and childhood fractures.

Associate professor **Åshild Bjørnerem** with PhD student **Rajesh Shigdel** presented results from a research project concerning cortical porosity. They hypothesized that combining cortical porosity determined by quantitative computed tomography (QCT) with femoral neck BMD measured by DXA would predict fracture better than each factor alone. This was investigated in a nested case-control study where 183 postmenopausal women with a fracture and non-fractured controls in the Tromsø IV study were invited to QCT and DXA measurements.

Post Doc **Tone Omsland** presented results from the RCN-funded three-year Post Doc project in NOREPOS concerning time trends and regional differences in hip fracture incidence and mortality after hip fracture. Her published paper showed that age-adjusted incidence rates of hip fracture in Norway have declined by 13% in women and 5% in men in the ten-year period 1999-2008. She also presented a projection showing that a large reduction in age-adjusted incidence rates is required to avoid an increase in the number of hip fractures up to year 2040. Standardized mortality ratios for men and women by time after the hip fracture up to 12 years were presented. Medical student

Siri Marie Solbakken who recently started her Forskerlinjeeducation with Tone as main supervisor, presented her research plans on hip fracture incidence, associated mortality and seasonal variation.

Kristin Holvik presented results from the RCN-funded three-year Post Doc project in NOREPOS concerning vitamins and risk of hip fracture in a prospective case-cohort with 1200 hip fractures from all four study centers in NOREPOS, showing the associations between serum concentrations of vitamins A, E and D and risk of hip fracture.

Professor **Bo Abrahamsen**, endocrinologist and epidemiologist from the Osteoporosis clinic in Copenhagen Gentofte hospital gave a talk on the topic of recurrent fractures and treatment failure. Treatment failure is a challenging concept in the individual patient for a categorical outcome such as fractures. Defining treatment failure is often difficult because complications often occur despite compliant use of treatment. He presented the IOF position paper on treatment failure in osteoporosis published in *Osteoporos Int* 2012;23:2769-74. The proposed criteria were: 1) Two or more new fragility fractures, 2) One new fragility fracture plus lack of response in serum bone turnover markers and/or BMD, or 3) lack of response in both serum bone turnover markers and BMD.

Professor **Peter Vestergaard**, endocrinologist and epidemiologist from Aalborg University, who has attended two former NOREPOS workshops, gave the audience an interactive task: The group as an entity with 26 co-authors would write a scientific paper in twenty minutes, based on the research question: Why does Norway have the world's highest hip fracture incidence? The participants were divided into smaller groups responsible for Background, Methods, Results and Discussion sections. A coordinator was appointed in each group, delegating the tasks to the other co-authors, each responsible for writing three lines. A manuscript was composed in an unusually short time span. The task increased our awareness that much can be achieved by effective collaboration and sharing of responsibility.

Liv Hektoen from Oslo University College gave a short presentation about cost estimates of hip fractures. She has been appointed by the Norwegian Directorate of Health to write an official report on this topic. The aim is to identify, quantify and value the costs in the treatment of hip fractures in Norway. The reference group includes health economists Hilde Lurås, Eline Aas and Vidar Halsteinli. The data material is based on 400 home-dwelling hip fracture patients 70 years and older who were included in an RCT in St Olav's Hospital in Trondheim.

The seminar day was concluded with working group discussions. The participants were allocated to five groups each devoted to a predefined research field, partly based on the topics of last year's working groups. The intention was to develop new NOREPOS collaboration research projects. The groups were asked to specify:

- 1) A research question
- 2) Data sources currently available or needed to collect to respond to the research question
- 3) The road ahead: How to follow-up on the plans, and who is responsible

The proposals were presented Tuesday morning in a session where a representative appointed by each group was given 20 minutes to present their ideas and receive feedback and comments from the other participants and the international guests. The sessions resulted in several specific plans that will be followed up next year.

Grethe Tell summarized the workshop and gave concluding remarks.