

## Summary of the 6th Annual NOREPOS workshop in Solstrand Hotel & Bad, Os, Hordaland 1. - 2. September 2011



The 6th Annual NOREPOS workshop was carried out in picturesque surroundings in Os outside Bergen during two days in early September 2011. There were 28 participants from across Norway in this year's workshop. We presented results of ongoing research within the framework of NOREPOS and there were working groups discussing ideas for future research. We had special guest lectures from Prof. Lasse Engesæter representing the Norwegian Arthroplasty Register in Bergen, Prof. Stein Emil Vollset from University of Bergen/NIPH, and Prof. Peter Vestergaard from Aarhus University Hospital, Denmark. It was a productive, inspiring and social workshop.

### Thursday 1<sup>st</sup> September

1300 - 1315: Local hosts **Grethe S. Tell** and **Clara Gram Gjesdal** welcomed the participants to the workshop. The participants were presented. Grethe S. Tell gave a short summary of the history and purpose of the NOREPOS collaboration. She said a few words about the large ongoing research project and the intention behind this year's workshop, which is to make plans for future research proposals.

1315 - 1445: Presentations from ongoing subprojects of the current NOREPOS research project: Research fellow **Cecilie Dahl** presented results from her submitted paper on self-reported forearm fractures and pH in drinking water in Norway. This analysis has been achieved by linking CONOR participants' place of residence to waterworks polygons in geographic information systems. Log-odds for forearm fractures were presented across the pH spectrum as well as using a cut-off value of pH 7.5. Post Doc **Kristin Holvik** presented the current status of her project concerning vitamin A, vitamin D, and hip fractures. This is a multicenter case-cohort study using baseline information, hip fracture follow-up data, and frozen serum samples from all four study sites in NOREPOS. 1232 hip fractures are included, as well as a sub-cohort of n=1502. She also presented some preliminary data submitted to this year's ASBMR annual meeting. In addition, she presented a part of the Ph.D. project of Trine E. Finnes, which is a case-cohort study in HUBRO and HUSK of the biochemical bone formation marker P1NP and the risk of hip fracture, including 810 participants.

Post Doc **Tone K. Omsland** presented results from the project concerning incidence of hip fractures in Norway which is based on collected data of all hip fractures treated in hospitals in Norway during 1994-2008. She summarized the quality assurance work which has been completed, and presented changes in hip fracture incidence over time, seasonal variation and regional differences in hip fracture incidence in Norway. Tone Omsland and **Nina Emaus** presented their plans for upcoming scientific papers.

1515 - 1615: Professor **Lasse Engesaeter** presented experiences from the Norwegian Hip fracture register. The register is located at the Norwegian Arthroplasty Register. It was launched January 2005 and now holds information for six complete years, including 46,000 patients, and owned by orthopedics nationwide. Information is collected through a form which is completed by the orthopedic performing surgery. Yearly reports are published on <http://nrlweb.ihelse.net/>. Statistics were presented on e.g. types of fractures sustained, types of surgery performed, types of osteosynthesis material used, survival of osteosynthesis material, waiting time for surgery, mortality of patients, dementia, ASA score, and quality of life measured by EQ5D 4, 12 and 36 months post-surgery. He also told about a project called Hip 89 – a cohort of newborn followed with ultrasound and weight measurements (several weight measurements on 2400). Possibilities for research collaboration between the Norwegian Hip fracture register and NOREPOS was discussed.

1630 - 1645: Professor **Haakon E. Meyer** presented as an example, a paper published in 2009 ([Meyer et al., Osteoporos Int 2009;20:827-30](#)) about the estimated attributed effect of use of hormone therapy on the decreasing hip fracture incidence in Oslo from the 1970s to the 1990s. Using data from the Oslo Health Study, it was estimated that roughly half the decline could be attributed hormone replacement therapy.

1645 - 1730: Professor **Stein Emil Vollset** gave an invited lecture concerning attributable risk. The lecture focused on models and principles for estimating the population attributable fraction of total and disease-specific deaths due to smoking, published by Vollset in collaboration with statisticians at the Norwegian Institute of Public Health. He also discussed how such estimates should be interpreted and used in health policy making. He presented examples of international and national reports concerning the global burden of disease analyses ([http://www.who.int/healthinfo/global\\_burden\\_disease/en/](http://www.who.int/healthinfo/global_burden_disease/en/)). It was discussed whether osteoporosis or osteoporotic fractures could be included as outcomes in future estimates.

## Friday 2<sup>nd</sup> September

0830 - 0930: Professor **Peter Vestergaard** gave an invited lecture entitled: “NOREPOS – a treasure chest of options”. This was a partly essayistic, partly scientific lecture bridging epidemiological research methods with clinical knowledge about bone health. Based on his experience with NOREPOS, the intention was to sow seeds of ideas for future plans and directions for NOREPOS. Under the allegory of the treasure chest which persistently needs to be refilled, some of his recommendations were: to look beyond the borders of Norway; to focus on brand building and lengthen our publication list; to take advantage of the massive information from existing SXA and DXA scans beyond BMD; to take advantage of the fact that we have regional scans, to study aspects of bone health beyond BMD and classical hip fractures (such as atypical fractures), and to consider modern imaging techniques.

0930 - 1300: The participants were distributed on three **discussion groups**. The assignment was brainstorming for innovative, creative, and verifiable research questions within three fields that had been touched upon during the plenary talks. The groups later presented their proposals in the final plenary session.

**Concluding remarks** summarized the large potential of the information available through NOREPOS. Strong encouragements were made about the potential for brand-building, being visible, and promoting our knowledge in media and public space, in order to improve awareness and influence decision-making about treatment of elderly patients with osteoporosis and fractures.