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News from CMSS

Welcome to new colleague

On 1 March, CMSS welcomed research assistant Regina F. Heiberg. Regina holds a Master of Science in Public Health. She has been employed by CMSS earlier where one of her tasks was to help establish the register <u>BLUE</u>. Her present task is to continue working with the register BLUE', among other things.



Regina's plan for the near future is to do a PhD based on data from BLUE. At present she needs to decide which subject could be relevant and interesting to study as a PhD project. Her immediate thought about a subject for her PhD is to investigate why seafarers have a worse health than the general population, and how this worse health can be prevented potentially.

Regina's scientific interest lies within health inequality, and due to that she thinks it could be exceedingly interesting to investigate the health of the maritime population.

Regina lives in Esbjerg together with her husband and son. She grew up in Esbjerg and intends to stay for good in this former "fishing city" surrounded by family and friends.

New projects and projects in the pipeline

Horizon 2020

In collaboration with the Department of Law, CMSS has just become a partner in Horizon2020. The project is called 'Multi- \underline{U} se offshore platforms demo \underline{N} strators for boost \underline{I} ng cost-effec \underline{T} ive and \underline{E} co-friendly pro \underline{D} uction in sustainable marine activities' (UNITED).



SDU's affiliation to the project relates to 'Pilot 4 Middelgrunden Wind', which focuses on expanding tourist activities (boat trips, leisure fishing and diving) related to offshore wind farms. SDU will be involved in two of the work packages - WP 6 'Legal, Policy and Governance' and WP 7 'Implementation of Multi-Use Concepts Within Pilots'. The project is expected to start in the fourth quarter of 2019 and runs for 2 years.

Evaluation of health promotion interventions in seafarers

At the end of 2018, CMSS started a new project in collaboration with international expert researchers. In this project, CMSS deals with the 'evaluation of health promotion interventions in seafarers'.

Together with Iranian and US researchers, CMSS has conducted a systematic review on health promotion interventions, and now CMSS - as a main collaborator of this project - has synthesized all available data and evaluated them. The current study is the first systematic review conducted on this topic. The purpose is to gain significant knowledge in the field which can provide sufficient evidence for CMSS to proceed with a more large-scale, qualitative study on the topic. The result of such studies would be crucial for policy makers, for development of health promotion strategies and for professionals working to improve health outcomes of this occupation.

Use of the CMSS register BLUE has started

BLUE is finally here! Regardless of still lacking some parts, first projects and analyses are already in the pipeline.

The first project looks at hospital contacts due to neoplasms, cardiovascular and respiratory diseases among seafarers residing in Denmark compared to people working in agriculture.

When the prevalence of a disease among a certain population group is reported it is important to compare it with at least one other group to obtain as accurate a picture as possible. Analyses in the maritime settings have often been done using the general population as a comparison group. This approach has, however, some limitations. Rates of disease, for example, tend to be higher in the general population than in the employed work force because the general population may include people who have left the labour market due to illness. The actual structure of the general population in terms of occupations also varies largely across time and

countries which makes interpreting results from these kinds of comparisons challenging.

Another option is to use another trade as a comparison group, albeit also entailing challenges in interpretation, but after all it is more understandable than somehow a vaguely perceivable general population. Therefore, in this first project, seafarers are compared with people employed in agriculture, a land-based trade which shares some factors with seafaring but which, on the other hand, differs with respect to other important elements.

Read more about BLUE.

Projects – just completed or close to completion

Energy efficiency on ships

CMSS has collaborated with the technical faculty at SDU and SIMAC in the INNO+ project, which ended this year. The focus of the project was to try to achieve energy optimization in ships with irregular sail patterns. The project was twofold, one part being the technical part with monitoring data from ship performance on sailing and diesel consumption, and the other part focused on understanding work practice on the ships, attitudes to energy optimization and opportunities and barriers to optimization.

Based on the data collected from data logs, interviews and observations, a software has been developed that can help the seafarers to assess their sailing patterns and try to find the best solution. The results of the project showed "that something so seemingly trivial as the dialogue between the officer on the bridge and the engineer in the engine room can be considerably improved in terms of energy efficiency. Sometimes it's just about starting two engines instead of three, and in any case, for reasonably limited means, you can achieve great savings" (Børsen 19.03.19). The results also showed that energy optimization depends on other factors, such as legislation, charter or teaching. There is a need to understand and consider the complexity of energy optimization as well as the need for cooperation between all partners.

PolSEA (Policing at SEA)

The project is funded by the Danish Council for Independent Research and ends in 2019. The purpose of the project is to answer the question whether the law of the sea in its present form

offers a sufficient legal framework for various police tasks at sea, or whether there is a need for further regulation. The project investigates various cases to test the law of the sea. The role of CMSS is to investigate whether the Polar Code improves safety at sea in the polar regions, focusing on Greenland.

At the end of April, the PolSEA Group held an intensive seminar together with research colleagues from Denmark and abroad, as well as a representative from IMO. During the seminar, various aspects of the law of the sea were discussed, and the PolSEA group received constructive as well as inspiring feedback. The results of the discussions will be published in a book that is expected to be released at the end of 2019 or at the beginning of 2020.

Read more about the PolSEA project

A selection of other CMSS activities

Annual general assembly in the Danish Society on Maritime Medicine

On April 5, 2019, the Danish Society on Maritime Medicine held its 19th general meeting, and about 20 of the society's members, including Hanna B. Rasmussen, Regina Fromsejer Heiberg and Solveig B. Dohrmann from CMSS, participated in the meeting and the related discussions.

The general meeting was held at the Danish Maritime Authority in Korsør, and they gave us a tour of their new premises. The Danish Society on Maritime Medicine hosted a light lunch before the board opened the meeting. The general meeting was duly initiated with the election of a chairman and a referee, and then the chairman's report by the society's chairman, maritime doctor Margit Smidemann. This was followed by a review of the budget and election to the board of directors. Solveig and Hanna were both re-elected; Solveig to the board of directors and Hanna as auditor.

After the general meeting, a constructive debate followed about the upcoming new executive order on medical examinations of seafarers and fishermen, a debate in which Malte M. Pedersen from the Danish Maritime Authority participated. The debate was supported by three video recordings in which Torben Leth from the Centre for Maritime Health Service at Fanø interviewed seafarers about their experiences with and attitudes to the medical examination, as well as a demonstration of a Chester step test, which Mette Gabriel from the Medical Office, was responsible for.

The debate - and the day - was wrapped up by all meeting participants confirming a mutual desire for future cooperation on the upcoming new executive order, and on offering maritime doctors the opportunity for further education.

Read more about the Danish Society on Maritime Medicine

Meet Esbjerg's researchers



This was the title of the seminar, which was held on 30 April in the auditorium at the University of Southern Denmark in Esbjerg during the nationwide event 'The Danish Science Festival'. Many different subjects are being researched in Esbjerg, and during this afternoon and evening, the attendees met nine of Esbjerg's researchers and got an insight into their research projects.

Each researcher gave a presentation of 15 minutes duration, and the topics ranged widely - from 'Trust and Mistrust', to 'Human Trafficking in Nepal' and 'Greener Oil and Gas Production', to 'Pregnancy Poisoning – Why'. In addition to these exciting topics, the participants also got an insight into maritime research. Solveig Dohrmann from CMSS participated in the event, where she presented some of the results from her PhD thesis. Her presentation focused on the part of her dissertation that dealt with the psychosocial work environment in Danish ferry shipping.

It was a successful and professionally organised event. The atmosphere was good and relaxed, and the participants were engaged and inquisitive. Furthermore, it gave the researchers a good opportunity to communicate their knowledge and contribute to the local community. CMSS will gladly participate in 'Meet Esbjerg's researchers' again or in similar events.

Read more about The Danish Science Festival

Offshore conference in Esbjerg

The 13th Task Force Zero conference took place on 2 May at Musikhuset Esbjerg (performing arts house). The overall topic of the conference was 'Better, Leaner, Cheaper... and SAFER!'.

The conference began with a flashback at one of the biggest disasters in the oil and gas industry 'Piper Alpha' – performed by actors from AKT Productions Ltd. A very captivating play about the tragedy, the mistakes that were made, and the subsequent consequences - not only for the industry but also for the employees and their families.

The conference also featured Charlie Morecraft's very personal story about his accident. In 1980, Charlie Morecraft worked at the Exxon Corporation where the accident occurred. He told the audience openly and honestly about his careless attitude towards safety. The shortcuts he took from standard procedures resulted in Charlie being burned over 50% of his body, spending five years in and out of hospitals, and losing his family and everything that he treasured. A very personal and touching story which shows the importance of taking safety seriously.

The conference was a mixture of experiences from the industry and examples from research. Among the speakers was also the Australian researcher Andrew Hopkins, who told how structures create culture, as well as Jean Pariès from France, who talked about complexity and the challenge of the unexpected. Eventually, Brendan Hall reported on 'The Clipper Round the World Yacht Race', and how he created an empowered crew that convincingly won the race due to their joint team spirit. All in all, a well-organized and knowledgeable conference that provided plenty of food for thought.

Publications

Recently published scientific articles from CMSS (names of CMSS employees marked in bold)

- Jensen OC, Charalambous G, Andrioti D. Perceived training needs of maritime doctors and general practitioners. *International Journal of Travel Medicine and Global Health* 2018;6(4):154-160. <u>Doi: 10.15171/IJTMGH.2018.28</u>
- Fotteler ML, Jensen OC, Andrioti D. Seafarers' views on the impact of the Maritime Labour Convention 2006 on their living and working conditions: results from a pilot study. *International Maritime Health* 2018;69(4):257-263. <u>Doi: 10.5603/IMH.2018.0041</u>
- **Kourantidou M**, **Kaiser B**. Sustainable seafood certifications are inadequate to challenges of ecosystem change. *ICES Journal of Marine Science* 2019. <u>Doi: 10.1093/icesjms/fsy198</u>.

- Kourantidou M, Kaiser B. Research agendas for profitable invasive species. *Journal of Environmental Economics and Policy* 2019;8(2):209-230. <u>Doi:</u> 10.1080/21606544.2018.1548980
- **Jensen OC**, **Baygi F**, Charalambous G, Flores A, Laursen LH, Lucas D et al. Mental health promotion program in the workplace with focus on transport. *Archives of Psychiatry and Mental Health* 2019;(3):001-011. <u>Doi: 10.29328/journal.apmh.1001004</u>

You can find more CMSS publications and bibliographic details by clicking here.