

# Prevalence of Health Risk Factors among Fishermen – A Review

9 d]XU' : fUbhnYg\_c i 1\*2' C'UZ'>YbgYb2'UbX'5h\YbU'@]bcg<sup>1</sup>

<sup>1</sup>Department of Hygiene and Epidemiology, Medical School, University of Athens, Greece

<sup>2</sup>Centre of Maritime Health and Society, Institute of Public Health, University of Southern Denmark, Esbjerg, Denmark

!7cffYgdcX]b[ 'Uih\cf. Elpida Frantzeskou, Department of Hygiene and Epidemiology, Medical School, University of Athens, 75 M. Asias str., 11527, Athens, Greece, Tel: (003) 210 7462059; E-mail: [elpidafrantzeskou@gmail.com](mailto:elpidafrantzeskou@gmail.com)

FYWY]jYX'XUhY. April, 09, 2014, 5WYdYX'XUhY. April 26, 2014, DiV]g\YX'XUhY: April 30, 2014

7cdf][\h. © 2014 Frantzeskou E, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## 5VghfUWh

**6UW\_[fcibX.** Studies have shown that fishermen have a higher mortality from cardiovascular diseases, cancer and accidents. The majority of cardiovascular disease is caused by external risk factors such as the diet, tobacco, alcohol and lack of physical activity. The purpose of this paper was to review the available information on the prevalence of these preventable risk factors in order to strengthen the preventive strategies.

**AYh\cXg.** A search for the last decade was done via Medline, Google and Google Scholar with the keywords "diet, tobacco, alcohol, physical exercise, overweight AND fisherman OR fishing and only those with precise prevalence estimation were included.

**FYgi'hg.** One Turkish, Scottish, Spanish, Greek and a Danish study were found. The prevalence rate for current smoking varied from 40% - 82% in the countries. Daily alcohol use also varied with 80%, 78% and 68% among the Scottish, the Greek and the Turkish fishermen respectively. For the diet, 23% of the Scottish fishermen reported eating fruit and vegetables more than once a day at sea and only 29% at home. The Spanish study reported "excessive calorie consumption while on shore, notably high in animal fats and accompanied by moderate-high alcohol consumption. On many vessels, food was limited to coffee, sandwiches and occasionally fruit on board. 66% of the Greek fishing workers did not perform any kind of exercise outside work. Obesity (Body mass index > 30.0) was found for 33% of the Greek fishermen. Of the Danish fishermen 25%, 34% and 37% were obese in the 18-24, 25-44 and 45-64 years age groups.

**7cbW'ig]cb.** Health risk factors among fishermen need to be highlighted and further investigated as they represent occupational risks of major impact to chronic diseases prevalence with projections to quality and duration of fishermen's life, but also to their future career in fisheries sector.

?YmkcfXg: Fishermen; Cardiovascular; Health; Risk factors; Health promotion

## Introduction

This review is produced based on a kind request from the editors of

## Results

## **Fatigue**

The Greek study indicates the irregular working hours pattern and the nature of the fishing occupational activity itself as causative for physical and psychological overload. It is reported that for Greek fishermen "Average working hours exceeded 10 hours per day (10.18) and average working months of the year reached 10.55." This overload has been clearly evidenced in a study conducted to British fishermen in which it is reported that "16% of the fishermen had been involved in a fatigue related accident or incident, 44% said they had worked to the point of exhaustion or collapse, 41% had fallen asleep at the wheel, and 43% had been so tired they had slept on the deck or in the gangway [11].

This exhaustion probably explains the unhealthy dietary habits, heavy smoking and lack of exercise, which are all seen among fishermen participated in these 5 studies of our interest.

## **Discussion**

5. Lawrie T, Matheson C, Ritchie L, Murphy E, Bond C (2004) The health and lifestyle of Scottish fishermen: a need for health promotion. *Health Educ Res* 19: 373-379.
6. Frantzeskou E, Kastania AN, Riza E, Jensen OC, Linos A (2012) Risk factors for fishermen's health and safety in Greece. *Int Marit Health* 63: 155-161.
7. Novalbos J, Nogueroles P, Soriguer M, Piniella F (2008) Occupational health in the Andalusian Fisheries Sector. *Occup Med (Lond)* 58: 141-143.
8. Hansen HL, Hjamoe L, Jepsen JR (2011) Obesity continues to be a major health risk for Danish seafarers and fishermen. *Int Marit Health* 62: 98-103.
9. World Health Organization (2000) Obesity: preventing and managing the global epidemic. Report of a WHO consultation. *World Health Organ Tech Rep Ser* 894: i-xii, 1-253.
11. Allen P, Wellens B, Smith A (2010) Fatigue in British fishermen. *Int Marit Health* 62: 154-158.
12. Shetty P (2006) Energy requirements of adults. *Public Health Nutr* 8: 994-1009.
13. Matheson C, Morrison S, Murphy E, Lawrie T, Ritchie L, et al. (2001) The health of fishermen in the catching sector of the fishing industry: a gap analysis. *Occup Med (Lond)* 51: 305-311.
14. Yamamichi N, Mochizuki S, Asada-Hirayama I, Mikami-Matsuda R, Shimamoto T, et al. (2012) Lifestyle factors affecting gastroesophageal reflux disease symptoms: a cross-sectional study of healthy 19864 adults using FSSG scores. *BMC Med* 10: 45.
15. Sørensen TI (1995) Socio-economic aspects of obesity: causes or effects? *Int J Obes Relat Metab Disord* 19(Suppl 6): S6-8.