FACT SHEET – OCCUPATIONAL HEALTH AND SAFETY
Exposure: Hot temperature conditions and extreme heat

Vulnerable group: Elderly population

1 Basic description

A person with a chronological age of 65 years or more is an older person. The cut-off generally used is the age at which a person becomes eligible for statutory or occupational retirement pension. also other aspects such as change or loss of social roles, changes in work patterns and changes in capabilities need to be taken into consideration.
Older population tend to be vulnerable to biological changes such as inability to do things faster, Illness and climate changes.
There are three main risk factors that contribute to vulnerability in older adults:

- Health status;
- Cognitive ability
- Social network

Evidence suggests that physical or mental decline associated with normal ageing seldom impacted on performance in most work, until age 70, with the exception of jobs requiring fast reactions or physical strength. Research suggests that the brains of older adults may function differently from younger adults but not necessarily with reduced functioning. However, there remains some concern that increased work-related illness and accidents may occur in those working after age 60. Topics raised in association with workplace accidents include, mobility, strength, dexterity and balance; sensory losses including hearing and vision; and cognitive changes with slower information processing and delayed reaction time. These changes may increase the risk and severity of accidents. However, results of such research on physical, cognitive and sensory changes in older people who are not necessarily employed may not be applicable or predictive of changes in workers over age 60.

Directive 2000/78/EC on equal treatment in employment and occupation supplements EU OSH legislation in ensuring that older workers benefit from equal rights with regard to occupational health and safety measures. The Community Strategy 2007 – 2012 on health and safety at work identifies the promotion of the safety and health of workers within the 55-64 age group as one of the major factors that will help raise the average employment rate of these workers in the EU. The Strategy mentions that work organization and occupational health and safety can contribute to ensure wellbeing at work, preventing early withdrawal from the labor market. The European Parliament's resolution of 15 January 2008 on the 2007-2012 OSH strategy, recalling the implications of demographic changes on occupational health and safety policies, encouraged the Commission and the Member States to reinforce measures preventing physical decline of work capacity, including through ergonomics and workplace design

2 Main impacts of extreme temperature and heat on human health

Prolonged exposure to heat can have following effects on human body:

- Heat exhaustion, heat cramps, and heat stroke
- Acute kidney injury
- Exacerbation of congestive heart failure and cerebral diseases
- Electrolyte imbalance
- Fever
- Respiratory disease

3 Main impacts of extreme temperature and heat on the health of elderly population

When we age, our bodies become less efficient at regulating temperature for a couple of reasons. Elderly population doesn't sweat as much as younger adults, which unfortunately is one of the body's most important heat-regulation mechanisms. Also, seniors store fat differently, which complicates heat-regulation in the body further.

There are a variety of lifestyle and health factors that increase the risk of developing a heat-related illness in elderly population

- Dehydration
- Salt-restricted diets
- Overdressing
- Heart or blood vessel problems
- Poorly working sweat glands or changes in your skin caused by normal aging
- Heart, lung, or kidney disease, as well as any illness that makes you feel weak all over or results in a fever
- Conditions treated by drugs, such as diuretics, sedatives, tranquilizers, and some heart and high blood pressure medicines; they may make it harder for your body to cool itself
- Taking several prescriptions drugs; ask your doctor if any of your medications make you more likely to become overheated.
- Being very overweight or underweight
- Drinking alcoholic beverages

Preventive measures:

- Get out of the sun and into a cool place—air-conditioning is best.
- Drink fluids, but avoid alcohol and caffeine. Water and fruit or vegetable juices are good choices.
- Shower, bathe, or sponge off with cool water.
- Lie down and rest in a cool place

4 References

- https://www.ifrc.org/PageFiles/133694/community-based-homecare-older-people-minimum-standards-en.pdf
- http://seniorsfirstbc.ca/for-professionals/vulnerability/
- https://academic.oup.com/occmed/article/62/1/4/1484821
- https://www.niehs.nih.gov/research/programs/geh/climatechange/health_impacts/heat/index.cfm
- The 2019 report of The Lancet Countdown on health and climate change: ensuring that the health of a child born today is not defined by a changing climate
- Heat Health Messages: A Randomized Controlled Trial of a Preventative Messages Tool in the Older Population of South Australia