allowing for early identification and intervention of problematic conditions. OSHA has also recognized the risk to outdoor workers by sponsoring campaigns to prevent heat illness (Phillips, 2019; OSHA 2010, 2014). Several state OSHA plans, including those in California, Washington, and Minnesota, have gone further to enact protective heat standards (California Division of Occupational Health and Safety (2019); Minnesota Office of the Revisor of Statutes (2014); Phillips; Washington State Department of Labor & Industries (n.d.)).

Protective heat programs in workplaces safeguard workers and save money by reducing the rates of work-related illnesses and injuries, the risk of accident, exacerbation of underlying health problems, heat related hospitalizations, and by improving productivity. OHNs possess the skills and training to evaluate and treat heat-related injury and illness and mitigate the health effects of heat on workers through education and implementation of heat protection programs. There are various measures to combat heat-related illness that can be included in a health protection program. These measures may vary based on the nature of the business and the type of work performed and may include a multi-disciplinary team. The measures may include (Phillips; NIOSH 2018; NIOSH 2015):

- implementing mandatory work breaks, limiting time in the heat and/or increasing recovery time spent in a cool environment,
- ensuring hydration with access to sufficient quantities of drinking water and electrolytes (if workers are sweating for more than two hours),
- having places to rest in the shade/cool environment,
- avoiding pay practices that discourage workers from taking rest breaks or stopping to hydrate,
- ensuring use of personal protective equipment such as garments that are light-colored and breathable, using reflective or heat-absorbing shields or barriers, or cooling vests,
- reducing steam leaks, wet floors, or humidity,
- exposure scrutiny and medical monitoring to recognize heat capture,
- ambient temperature measurement,
- calculation of heat index
- education, health and safety training on prevention of heat-related injuries and illness,
- education of both workers and leaders on the early signs of heat-related illness

- educate leaders and managers on first aid measures for heat related illnesses, and knowing when to seek emergency care (CDC, 2017)
- increasing the number of workers per task or rotating personnel,
- reducing the metabolic demands of the job,
- implementing a buddy system where workers observe each other for signs of heat intolerance,
- requiring workers to conduct self-monitoring and create work groups (i.e., workers, a qualified healthcare provider, and a safety manager) to make decisions on self-monitoring options and standard operating procedures,
- implementing a heat alert program whenever the weather service forecasts that a heat wave is likely to occur,
- increasing physical fitness,
- heat acclimatization plans ensuring gradual acclimatization to work over a period of at least 7-14 days, and
- ensuring safety plans follow the hierarchy of controls and that emergency response plans include first aid and medical response for heat-related illnesses.

Additional information is provided by NIOSH (2016) in the Criteria for a Recommended Standard: Occupational