

3-year study to look at impact of heat on health, productivity

S'pore-led project studying how heat affects those with more physically intensive jobs

Timothy Goh

Singapore is hot, hot, hot. But this does not mean nothing can be done about it.

Local researchers keen to prove that the effects of heat can be tamed have embarked on a research project to study its impact on the health and work productivity of those with more physically intensive jobs here, such as migrant workers, soldiers and hawkers.

Named Project Heat-Safe, the three-year project will also identify policy changes that can be made and other actions that can be taken to reduce the impact of heat on these groups.

The study, launched on Oct 1, involves researchers from the National University of Singapore (NUS), Singapore-ETH Centre and foreign counterparts from places such as Vietnam, Cambodia and China. It is supported by the National Research Foundation of the Prime Minister's Office.

The project's lead principal investigator, Associate Professor Jason Lee, told *The Straits Times* on Monday that Singapore sees about one heat-related death every five years. But while this number may seem small to some, he added that the main concern is of accidents occurring as a result of heat stress.

"When you are hot, you compromise your decision making and, therefore, accidents do increase," said Prof Lee, who is deputy director of the Human Potential Translational Research Programme at

the NUS Yong Loo Lin School of Medicine.

So he and his fellow researchers are trying to understand how heat may adversely affect those who spend long hours doing physical labour and what can be done about it.

Such a project will benefit not only manual labourers, but also the rest of the population, he said, even though many people may simply take it for granted that Singapore is naturally hot and they cannot do anything about it.

For instance, he said: "We are so behaviourally adjusted to this sort of climate that the price we pay is not a short-term one. We avoid exercise outdoors during a certain window of the day and, therefore, we lose the opportunity to keep ourselves fit."

This can later lead to other issues linked to a sedentary lifestyle.

But this mindset is flawed, he added, as individuals can respond to heat differently depending on

various factors, including the clothes they wear, the type of exercises they are engaged in and how they are conditioned.

Prof Lee said that this is the first project of its kind here to involve not just scientific perspectives, but also economic and social ones.

"We are not just producing good science, but (trying) to change policy. We want to go into the boardroom and say that we know the problem, this is our recommendation: it will cost \$1 million but you will reap \$10 million, and there is no need to compromise between health and productivity because you can achieve both," he said.

The project will involve a survey of hourly heat levels in selected work environments across Singapore, Vietnam and Cambodia, and a study of the heat impacts on workers and their health and productivity in the three countries.

It will also try to understand the individual practices of workers and how they attempt to manage heat stress, and analyse the country-level economic and well-being impact of work productivity loss due to heat, and compare it with the costs of heat prevention policies and measures.

Project Heat-Safe will also examine whether heat stress has an impact on fertility and pregnancy outcomes in Singapore, and the potential impact of heat on education and students' ability to focus after activities such as physical education classes.

Prof Lee said: "I hope this project will create more awareness that the impact of heat stress is very significant in our context, where the loss of productivity is something that is unseen."

HEAT INFLUENCES ACTIONS

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ASSOCIATE PROFESSOR JASON LEE, Project Heat-Safe's lead principal investigator.

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Celebrating the fighting spirit in children with cancer



President Halimah Yacob applauding six-year-old Asfa Horis while she performs a musical piece on the piano. Asfa, who was diagnosed with acute lymphoblastic leukaemia when she was two, learnt to play the piano at the Young Heroes Cancer Care Centre by Ain Society. Her cancer has been in remission for the past 1½ years. Piano lessons are among the various activities organised by the centre to create a conducive environment for young cancer patients like Asfa. President Halimah yesterday visited the centre and learnt about the activities and programmes there. ST PHOTO: ONG WEE JIN