Challenges to the local government environmental health workforce in South Australia

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If local councils aim to better address climate change and public health issues, they will be best served by employing more environmental health

officers (EHOs), according to new Flinders University research.

The effectiveness of local government EHOs was examined by a research team from Flinders University's College of Science and Engineering, which showed that the ability of EHOs to use their local knowledge and skills in human health risk assessment during a public health emergency was capably demonstrated by their education and communication responses to the COVID-19 pandemic.

The Flinders team's survey and follow-up interviews examined the roles and responsibilities of EHOs during the COVID-19 pandemic, and these results have been used to examine the potential of this workforce to tackle climate change and health-related issues.

The survey illustrated what worked well, what regulatory tools were helpful, how interagency collaboration worked and what barriers or hindering factors existed. It also showed the EHOs' assessment of their own capabilities to tackle climate change and public health issues—and notably, half the workforce believed they could have been better used through the COVID-19 period.

The research, "Climate Change and Health: Challenges to the Local Government Environmental Health Workforce in South Australia," is published in the *International Journal of Environmental Research and Public Health*.

"These lessons learned from the COVID-19 pandemic should be incorporated into climate change adaptation planning," says the report. The research identifies current and future challenges facing EHOs and their capacity to assist in climate change preparedness.

It also recommends that for councils to ensure consistent messaging and a consolidated information repository, a centralized group should be

used to coordinate local government climate change adaptation plans in relation to environmental health and be included in all future emergency management response plans.

The surveyed EHOs identified environmental health issues associated with climate change as their most significant future challenge. However, participants believe that a lack of adequate resourcing is leading to workforce shortages, increasing workloads and a lack of support—which all negatively impacts the workforce's preparedness to deal with these emerging issues.

Lead researcher Professor Kirstin Ross believes these are workforce areas that councils should try to bolster.

"A misperception of environmental health and a failure to recognize its value has resulted in a unique dilemma where EHOs and their councils find themselves caught between managing current workload demands and issues, and trying to urgently prepare for emerging environmental health issues associated with climate change by bolstering insufficient current resources," says Professor Ross.

"In Australia, environmental health officers are currently an underutilized source of knowledge and skills, uniquely positioned to contribute to climate change adaptation planning at a local government level. However, high workloads, under resourcing, and a misperception around their role, both internally and externally, is impact their ability to contribute," adds Flinders University research colleague Associate Professor Harriet Whiley.

Research co-author and City of Onkaparinga Team Leader: Community Health, Nicole Moore, pointed to effective recent work undertaken by council EHOs as a consequence of the River Murray's once-in-a-generation flood.

"Japanese encephalitis and Murray Valley encephalitis were both detected in Onkaparinga earlier this year for the first time, which saw us ramp up our involvement in the state government's Fight the Bite education campaign," explains Moore.

"Our team also supported SA Health in the delivery of the Japanese encephalitis virus vaccine to the Alexandrina community, and to Adelaide Hills Council staff who were assisting with the floodwater response efforts in the Riverland.

"We've since changed and increased our mosquito treatment program for bodies of water around our council area from October to April, treating any known breeding sites with a larvicide to prevent the larvae from becoming adult mosquitoes.

"With extreme weather events predicted to become more intense in coming decades, there's scope for EHOs to become more involved with community adaptation and preparedness, if the sector's workforce challenges can be addressed."

The study also revealed that EHO workforce demographics have shifted significantly, resulting in a more feminized and older workforce since the last review of the South Australian environmental health workforce was conducted in 2010.

The profession is also more experienced, with 61% of EHOs indicating they had more than 10 years' experience, compared with 48% in 2010.

All Australian environmental health qualifications are accredited by Environmental Health Australia (the peak professional body) using the Environmental Health Officer Skills and Knowledge Matrix developed by the Environmental Health Standing Committee, but Flinders researchers suggest that building the EHO workforce will be helped by a

more uniform national recognition of accredited degrees.

Currently, there is a range of undergraduate and postgraduate degrees that meet the accreditation policy, but Professor Ross says room for improvement remains in EHO education, as the need to hold an accredited environmental health degree for an authorized environmental health officer under the relevant state and territory public health acts varies between different governments across Australia.

The researchers also identified that a poorly defined EHO professional identity is still apparent due to varying survey responses to what was perceived to be in the EHO scope of practice.

More information: Harriet Whiley et al, Climate Change and Health: Challenges to the Local Government Environmental Health Workforce in South Australia, *International Journal of Environmental Research and Public Health* (2023). DOI: 10.3390/ijerph20146384

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