

### Investigation of The Legionnaires' Disease Outbreak in Southern Taiwan, 2020

Yun-Hsuan Yang<sup>1\*</sup>, Chia-Tzu Liu<sup>2</sup>, Yu-Lan Tsai<sup>2</sup>, Hui-Pin Ho<sup>2</sup>,  
Min-Nan Hung<sup>1</sup>, Yen-Chang Tuan<sup>1</sup>, Hui-Chen Lin<sup>1</sup>

#### Abstract

From December 2020–January 2021, 17 confirmed cases of Legionnaires' disease occurred in Southern Taiwan. The Taiwan Centers for Disease Control and local health agencies conducted home and community environmental inspection and sampling. No suspicious source of infection was found near patient's home, but many factories near the industrial area had cooling towers. In order to control the epidemic as early as possible, cross-departmental collaboration was carried out before the environmental inspection report was issued. The factories were coordinated to clean and sanitize the cooling tower and the households were recommended cleaning waterway of the house, and thus the epidemic was effectively controlled. Although serogroup 1 of *Legionella pneumophila* was detected in some houses and the cooling towers of factories, however no bacteria were isolated from the clinical specimens of cases. Therefore, we could not compare the strains from cases and environment. The possibility that this community outbreak of Legionnaires' disease was related with common source of infection and some cases might be infected from the waterway of home could not be ruled out.

**Keywords:** Legionnaires' disease, *Legionella pneumophila*, environmental survey, cooling tower, cross-departmental collaboration

<sup>1</sup>Kaohsiung-Pingtung Regional Center, Centers for Disease Control, Ministry of Health and Welfare, Taiwan

<sup>2</sup>Department of Health, Kaohsiung City Government  
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Corresponding author: Yun-Hsuan Yang\*

E-mail: E110617@nhi.gov.tw

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