

Forty years of volcano health research and practice: From Mount St. Helens 1980 to Tonga 2022

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The response to the 1980 eruption of Mount St. Helens involved a pioneering, rapid and detailed evaluation of the health risks of inhaling volcanic ash. This interdisciplinary effort, conducted by clinicians, epidemiologists, toxicologists and geochemists found that volcanic ash could contain concerning quantities of the potentially pathogenic mineral crystalline silica and showed that volcanic ash exposures could exacerbate existing respiratory conditions. This ground-breaking work set the scene for a new field of research, methodological development and practice, commencing again, in earnest, at the onset of the Soufrière Hills eruption, Montserrat in 1995. This talk will review the research and practice which has been conducted since then. This will be set in the context of the developing role of the International Volcanic Health Hazard Network. Since its inception in 2003, IVHHN has evolved from an interdisciplinary forum into an international organization which provides World Health Organization endorsed, evidenced-based public information and advises governments on how to prepare for, and respond to, the health-related consequences of eruptions.