

Marine Pollution Prevention in American Samoa Journal of Health Disparities Research and Practice

Volume 9 Issue 5 *Special Issue - NIDDK STEP UP*

Article 57

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2016

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Recommended Citation

Ve'e, Taufagalupe and Comeros, MSc, Mia Theresa (2016) "Marine Pollution Prevention in American Samoa," *Journal of Health Disparities Research and Practice*: Vol. 9: Iss. 5, Article 57. Available at: https://digitalscholarship.unlv.edu/jhdrp/vol9/iss5/57

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Marine Pollution Prevention in American Samoa

Abstract

Most of the garbage in American Samoa heads to the landfill in Futiga on the island of Tutuila. Reports indicate that the landfill is expected to reach critical capacity in 2015. Some have started to look into advanced technology to deal with the problem, which could lead to millions of dollars of government spending. Our study focuses on how to reduce solid waste through composting, a natural way to recycle organic or biodegradable waste. Composting is a great option to look into since about fifty percent of waste sent to the landfill is biodegradable and because it is easily done with little or no cost and is beneficial to the environment.

This study is divided into two parts. First, research will be done through the internet, interviews will be conducted with experts, and a survey will be done to determine the composting methods done on island, awareness of the current landfill situation, awareness on composting and if it is conducted at home, and if those surveyed agree that composting would be beneficial for proper solid waste management in American Samoa. Second, a simple method of composting will be created to share with the public so that everyone may have the opportunity to begin his or her own compost pile. Preliminary data shows that 62% of the people know about the landfill capacity problem, 68% know what composting is, and 33% of households conduct their own composting. Approximately 76% of the people surveyed practice the 3Rs: reuse, reduce, and recycle. This study shows that composting is a practical means for reducing waste in American Samoa.

Keywords

Marine Pollution; Ocean Health; Human Health; Impacts; Plastic



Journal of Health Disparities Research and Practice Volume 9, Special Edition 1, Summer 2016, pp. 85 © 2011 Center for Health Disparities Research School of Community Health Sciences University of Nevada, Las Vegas

Marine Pollution Prevention in American Samoa

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ABSTRACT

The garbage that washes up on our beaches today is the result of human activity. The majority of this marine debris is plastic, with approximately 46,000 pieces of plastic found per km² in the world's oceans. These plastics are detrimental to marine life killing a million seabirds and 100,000 marine mammals each year. Not only does marine debris affect these animals, it also has significant impacts and harmful consequences on human health. This project aims to examine seven polluted beaches on the East Side of American Samoa in order to determine villagers' perceptions of where trash converges from villages upstream to the beaches downstream, and how waste can be prevented from entering the ocean. Compiling these different methods will provide solutions to minimize marine pollution in the Territory. Moreover, the knowledge gained from this project can benefit the people of American Samoa and its future generations.

A survey was carried out in the villages of: Aua, Lauli'i, Auto, Alofau, Alao, Aunu'u and Tula to gain perspective on how people perceive marine pollution in their surrounding environment. Preliminary results show that in the village of Lauli'i, 85% of people surveyed, indicate that most of the trash enters the ocean because of littering. Litter is found on beaches, sidewalks and places close to the ocean. Additionally, 71% indicate that the most effective means of pollution prevention is through stream booms or filters. These pollution prevention tools will enable future generations to enhance their living conditions and promote a healthy environment.

Key Words: Marine Pollution, Ocean Health, Human Health, Impacts, Plastic

ACKNOWLEDGEMENTS

The STEP-UP HS program is supported by the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health, Grant number: R25DK078386.