

Health Promotion in Okinawa (Japan) and Indonesia from the Perspective of Blue Zones and Healthy Longevity

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Introduction

In March 2024, I had the opportunity to visit the city of Loma Linda, California, USA, for training. Loma Linda is a green town with a population of about 25,000, where residents exhibit a high level of health consciousness, particularly in their diet. I learned that this area has been attracting attention since around 2000 as a so-called "Blue Zone." Therefore, we will focus on the "Blue Zones," known as regions of healthy longevity, with a particular emphasis on comparing Okinawa Prefecture (Japan) and Loma Linda, California, USA. The current status and challenges of health promotion in Indonesia and future possibilities for health promotion strategies will be examined.

What Are Blue Zones

Blue Zones are regions with an exceptionally high average life expectancy and many centenarians (people over 100 years old). The concept was first proposed by Italian physician Gianni Pes and later developed through research by Michel Poulain in Belgium and Dan Buettner in the United States. There are five recognized Blue Zones in the world, each with the following characteristics (Buettner, 2008):

1. Ikaria (Greece): Mediterranean diet and napping habits.
2. Sardinia (Italy): Social cohesion and moderate wine consumption.
3. Nicoya Peninsula (Costa Rica): Corn-based diet and a positive outlook on life.
4. Loma Linda (USA): Vegetarianism and religious beliefs.
5. Okinawa (Japan): Traditional Okinawan cuisine and a strong local community.

Changes and Challenges in Life Expectancy in Okinawa

Okinawa Prefecture was once known as Japan's region with the highest life expectancy. However, according to the Ministry of Health, Labor, and Welfare (2022), Okinawa's average life expectancy has declined, ranking 43rd for males at 80.73 years and 16th for females at 87.88 years. This decline has been attributed to Westernizing eating habits, increased physical inactivity, and weakening social ties (Ikeda et al., 2011). Factors contributing to Okinawa's historical longevity include the following:

1. Traditional diet: Okinawan cuisine is low in calories and nutrients, incorporating bitter melon and island tofu.
2. Physical activity: Daily exercise, including farming and gardening, was traditionally practiced.

3. Community connections: The culture of mutual assistance, known as "moai" (mutual aid), strengthened social ties. However, these elements have declined in recent years, which may have contributed to Okinawa's decreased life expectancy.

Characteristics of Healthy Longevity in Loma Linda

Loma Linda, located in Southern California, has a population of approximately 25,000. The region is influenced by the Christian religious group "Seventh-day Adventists," their lifestyle is thought to contribute to longevity (Fraser, 2003). The main characteristics of Loma Linda's longevity include:

1. Vegetarianism: Residents consume less meat and incorporate soy products and nuts into their diets.
2. Physical activity: Daily exercise, such as walking and bicycling, is daily.
3. Religious beliefs: Faith provides stress relief and mental stability.

These factors contribute to the longevity of Loma Linda residents, who reportedly live nearly 10 years longer than the national average (Buettner, 2008).

Current Status and Challenges of Health Promotion in Indonesia

Health promotion in Indonesia has advanced in recent years due to active government efforts. However, several challenges remain. For instance, high smoking rates pose a serious problem, contributing to smoking-related diseases, which are a significant cause of death (Indonesia Research Institute Japan, 2020). Additionally, diabetes and obesity rates are rising, mainly due to unhealthy lifestyles, including a lack of exercise and high-calorie diets (Ministry of Health of Indonesia, 2022). Furthermore, the Japan International Cooperation Agency (JICA) reported that maternal and child health indicators remain low compared to other ASEAN countries, exacerbated by a shortage of medical personnel, particularly in rural areas (JICA, 2024). Another challenge is improving health literacy among the population. According to the Japan External Trade Organization (JETRO), While the government supports policies to ensure safe and high-quality healthcare, further efforts are required (JETRO, 2024). Addressing these challenges requires collaboration between governments, healthcare organizations, and communities to implement comprehensive health promotion strategies.

Discussion: Utilizing Elements of the Blue Zones for Health Promotion

Applying insights from the Blue Zones study to health promotion can foster longevity in various societies. It is crucial to encourage the consumption of plant-based foods while reducing the intake of processed and high-fat foods, as exemplified by the traditional Okinawan diet and Loma Linda's vegetarianism to improve dietary habits (Marks, 2025). Additionally, strong social connections, such as Okinawa's "moai" and Sardinia's community cohesion, help prevent isolation and contribute to health maintenance (Holt-Lunstad et al., 2010).

Regarding physical activity, residents of the Blue Zones engage in daily movement, such as walking and light exercise. Therefore, health promotion policies should encourage routine physical activity. Stress management is another key factor, with Loma Linda's religious practices and Ikaria's napping customs effectively reducing stress. Incorporating meditation and yoga into daily routines could be beneficial.

Currently, Shiga Prefecture has the highest male life expectancy in Japan at 82.73 years, while Okayama Prefecture leads in female life expectancy at 88.29 years. Understanding the factors contributing to longevity in these prefectures and comparing them to the "longevity secrets" of the Blue Zones could provide valuable insights for health promotion strategies.

Conclusions

The study of Blue Zones highlights the importance of diet, social connections, exercise, and stress management in achieving healthy longevity. Incorporating these elements into strategies addressing the challenges in Okinawa Prefecture (Japan) and Indonesia's health promotion efforts can contribute to creating a healthier society.

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