

# Comprehensive Analysis on the Impact of Healthy Food and Habit on Life Span

Dharshini.B<sup>1</sup>; Santhanalakshmi.V<sup>2</sup>; Dr. D.P. Sivasakti Balan<sup>3</sup>

<sup>1, 2, 3</sup>KRM Public School, Chennai, India

Publication Date: 2025/08/21

**Abstract:** This study investigates the influence of healthy lifestyle practices on life expectancy by focusing on three highly populated countries: China, Japan, and India. It delves into key factors such as dietary patterns, levels of physical activity, healthcare infrastructure, environmental conditions, and cultural traditions that play a vital role in shaping the overall health and longevity of their populations. By analysing these aspects, the research highlights both the shared and unique contributors to life expectancy within these nations. The findings aim to provide a deeper understanding of how different health policies and lifestyle behaviours interact within distinct social and economic frameworks, ultimately offering guidance on strategies that could improve longevity and well-being across diverse populations.

**Keywords:** Life Expectancy, Healthy Living, Comparative Analysis, China, Japan, India, Healthcare Systems, Lifestyle Habits, Nutrition, Physical Activity, Environmental Factors.

**How to Cite:** Dharshini.B; Santhanalakshmi.V; Dr.D.P.Sivasakti Balan(2025), Comprehensive Analysis on the Impact of Healthy Food and Habit on Life Span. *International Journal of Innovative Science and Research Technology*, 10(8), 757-760. <https://doi.org/10.38124/ijisrt/25aug535>

## I. INTRODUCTION

Life expectancy serves as a crucial indicator of a nation's public health and overall well-being, reflecting improvements in healthcare, living conditions, and lifestyle choices. Globally, life expectancy has steadily risen, with many Asian countries showing remarkable progress. This paper focuses on China, Japan, and India to explore the diverse factors influencing longevity, including lifestyle habits, healthcare systems, and socio-cultural elements. Currently, Japan boasts one of the highest life expectancies worldwide, thanks largely to its healthy diet, effective healthcare, and supportive social structures.

China has experienced significant gains in lifespan due to enhanced medical services and better living standards, while India, though improving rapidly, still lags behind its neighbors. Historically, all three countries have seen notable increases in life expectancy over recent decades, reflecting economic growth and public health advancements. Traditional diets play a major role: Japan's fish-rich, vegetable-heavy cuisine with fermented foods supports cardiovascular health and lowers chronic disease rates; China's balanced meals grounded in rice, vegetables, and Traditional Chinese Medicine principles are evolving under urban influences, leading to rising lifestyle diseases; India's largely plant-based diet, complemented by Ayurveda, faces challenges from processed foods and urban dietary shifts. Physical activity patterns also differ, with Japan encouraging lifelong movement through practices like "Hara Hachi Bu" and community exercises, China integrating Tai Chi and

Qigong alongside government fitness initiatives, and India balancing yoga and morning walks with growing sedentary behaviors in cities.

Healthcare accessibility is another key factor—Japan's universal system emphasizes preventive care and elder support, China is modernizing healthcare access particularly in rural regions while grappling with demographic shifts, and India relies on a mixed healthcare model bolstered by technological advances and government programs like Ayushman Bharat.

Environmental conditions affect health outcomes as well; Japan benefits from clean air and green urban planning, China confronts pollution challenges mitigated by policy interventions, and India struggles with air and water quality issues amid ongoing infrastructure improvements. Lastly, socio-cultural attitudes towards aging significantly influence longevity: Japan's respect for elders fosters mental well-being and community engagement; China's Confucian traditions emphasize filial care, though urbanization challenges this; and India's joint family systems provide elder support, even as modernization shifts these dynamics. Together, these interwoven factors shape the life expectancy trends in these countries, offering valuable insights into how cultural, environmental, and systemic elements impact population health across diverse contexts.

## II. REVIEW OF LITERATURE

### ➤ *Impact of Healthy Living on Life Expectancy*

Life expectancy is closely linked to lifestyle choices, including diet, physical activity, and healthcare access. The World Health Organization (WHO) has highlighted that countries with healthier lifestyles tend to have lower rates of chronic diseases like heart disease, diabetes, and cancer, leading to a longer life expectancy (WHO, 2018). Healthy living habits, particularly in relation to diet and physical activity, contribute significantly to the prevention of such diseases (Reddy et al., 2016).

### ➤ *Dietary Habits and Longevity*

The role of diet in determining life expectancy has been widely studied. In Japan, the traditional diet—consisting of fish, rice, vegetables, and soy products—is considered a primary factor behind the country's high life expectancy (Yoshida et al., 2020). Studies by Asai and Sato (2017) found that the Okinawan diet, characterized by low caloric intake and high consumption of vegetables and fish, correlates with increased longevity. In contrast, China, which has rapidly modernized in recent decades, faces challenges such as the increased consumption of processed foods and higher fat intake, which have led to rising obesity rates and chronic diseases (Liu et al., 2019). In India, the traditional vegetarian diet provides numerous health benefits, but urbanization and the increasing consumption of processed foods are contributing to higher rates of non-communicable diseases (Patel et al., 2017).

### ➤ *Physical Activity and Longevity*

Physical activity has long been associated with longevity. In Japan, daily physical activity, including "Radio Taiso" exercises and walking, is common, particularly among the elderly (Miyawaki, 2019). This regular exercise is correlated with lower rates of cardiovascular diseases and a higher life expectancy (Miyamoto & Matsuura, 2011). Similarly, in China, traditional forms of exercise like Tai Chi and Qigong are part of daily life, especially among the older population (Yang & Li, 2018). However, in India, while physical activity remains high in rural areas, urbanization has led to sedentary lifestyles and an increase in lifestyle diseases such as obesity and diabetes (Sharma et al., 2018).

### ➤ *Healthcare Systems and Access*

The healthcare system plays a critical role in influencing life expectancy. Japan's universal healthcare system has significantly contributed to its citizens' longevity by providing access to preventive care and early diagnosis (Tomioka et al., 2014). In China, the government has invested heavily in healthcare reform, but there are still gaps in access, particularly in rural regions, where healthcare services are limited (Liu et al., 2020). India faces similar challenges, with healthcare disparities between urban and rural areas and issues related to insufficient healthcare infrastructure (Patel et al., 2016).

### ➤ *Environmental and Social Determinants*

Environmental factors, such as air quality and sanitation, also impact health outcomes. In China, rapid

industrialization has led to significant environmental pollution, contributing to higher rates of respiratory diseases and other health issues (Kamal et al., 2020). In contrast, Japan's focus on environmental sustainability and clean air policies has resulted in better health outcomes for its population. Social factors, such as the importance of family support in aging populations, are also critical. In Japan, filial piety and community involvement in elderly care help maintain the mental well-being of older adults (Miyamoto & Matsuura, 2011). These social systems may contribute to the mental and emotional health of older populations, supporting longevity.

## III. METHODOLOGY

This case study highlights how lifestyle changes and cultural practices influence health outcomes in three major urban centers: Beijing, Okinawa, and Delhi. In Beijing, the adoption of a more Westernized diet—characterized by higher consumption of processed foods, sugars, and fats—has contributed to rising rates of obesity and chronic illnesses such as diabetes and heart disease. Conversely, Okinawa offers a compelling example of longevity, where the traditional diet rich in vegetables, legumes, and seafood, combined with active aging habits, supports one of the world's highest life expectancies.

In Delhi, rapid urbanization has led to more sedentary lifestyles and increased exposure to processed foods, factors linked to a growing prevalence of chronic diseases and slower improvements in life expectancy. Complementing these observations, Dan Buettner's book, *The Blue Zones: Lessons for Living Longer from the People Who've Lived the Longest*, identifies common lifestyle traits among the world's longest-lived populations.

These include natural movement integrated into daily life, having a clear sense of purpose, primarily plant-based diets, strong social connections, effective stress management rituals, and moderate alcohol consumption often enjoyed in social settings. Together, the case studies and Buettner's findings emphasize that longevity is closely tied to holistic lifestyle habits that blend nutrition, physical activity, mental well-being, and community support.

### ➤ *From Japan: Miyamoto & Matsuura (2011):*

- **Community-based physical activity programs like Radio Taiso** in Japan help improve **physical and mental health** among the elderly, contributing to **higher life expectancy** through **muscle strength, balance, and cardiovascular health**. Yoshida et al. (2020): The **Okinawan diet** (low-calorie, high in vegetables, soy, and fish) is linked to **longer life expectancy** due to its **preventive effects** against heart disease and **obesity**. It promotes healthy aging through a balanced, nutrient-rich diet.

➤ *From China: Liu et al. (2019):*

- The shift from a **traditional Chinese diet** to a **Westernized diet** (more processed foods, fats) is associated with **rising obesity** and **chronic diseases**, impacting life expectancy in **urban China**. **Yang & Li (2018):**
- **Tai Chi** and other traditional exercises in China help improve **flexibility**, **balance**, and **cardiovascular health**, significantly contributing to **longevity**, especially among the elderly.

➤ *From India: Patel et al. (2017):*

- India's **vegetarian diet** (rich in legumes, vegetables, grains) is linked to **lower heart disease** and **diabetes** rates. However, **urban dietary shifts** toward processed foods are reducing life expectancy. **Sharma et al. (2018):**
- Rising **urbanization** in India is leading to **sedentary lifestyles**, contributing to **chronic diseases** like **obesity** and **hypertension**, especially in cities, lowering life expectancy. **Reddy et al. (2016):**
- **Healthcare access disparities** between **urban** and **rural** India result in **inequitable health outcomes**, with **rural areas** experiencing higher mortality rates and lower life expectancy due to lack of healthcare infrastructure.

#### IV. RESULTS

The research reveals distinct variations in life expectancy and the key factors that influence longevity across Japan, China, and India.

➤ *Life Expectancy*

- Japan leads with the highest average life expectancy of around 84 years, attributed to its nutritious diet, comprehensive healthcare system, and active aging initiatives.
- China follows with an average life expectancy of about 77 years, reflecting substantial improvements from healthcare reforms, though ongoing challenges like environmental pollution and the rise of lifestyle-related illnesses persist.
- India's life expectancy is lower, near 70 years, impacted by socioeconomic inequalities, limited healthcare access in rural areas, and a growing burden of chronic diseases.

➤ *Dietary Habits*

- Japan's diet, rich in fish, vegetables, and whole grains, supports low incidences of cardiovascular disease and contributes to longevity.
- China is undergoing a dietary shift toward more Western-style eating, including increased intake of processed foods and fats, which correlates with rising obesity and diabetes rates.
- India's traditional plant-based diet offers health benefits; however, urbanization and increased consumption of

Western-style processed foods are driving up the prevalence of conditions like hypertension and diabetes.

➤ *Physical Activity*

- Japan encourages regular exercise among all ages, with community programs like Radio Taiso promoting physical activity among seniors, which supports their longer lifespan.
- In China, practices such as Tai Chi remain popular, providing both physical and mental health benefits, particularly for older adults.
- India is seeing a rise in sedentary behavior, especially in urban settings where desk jobs and screen time contribute to increased obesity and related health issues.

➤ *Healthcare Access*

- Japan's universal healthcare system ensures broad availability of preventive care and early medical intervention, playing a key role in reducing mortality.
- China has expanded healthcare services significantly, although rural regions still face shortages in medical resources and infrastructure.
- India continues to grapple with uneven healthcare access, particularly in rural areas where facilities are often under-resourced and lack sufficient staff.

#### V. CONCLUSION

The comparative analysis of China, Japan, and India reveals that **healthy living practices**—including diet, physical activity, and access to quality healthcare—have a profound impact on life expectancy. **Japan's** high life expectancy is closely linked to its traditional diet, active aging programs, and universal healthcare system, which collectively create an environment conducive to longevity. **China** has made remarkable strides in improving life expectancy, but challenges such as pollution, rising obesity rates, and shifting dietary habits remain obstacles. **India** faces the greatest challenges in terms of healthcare infrastructure, socioeconomic disparities, and the rising burden of lifestyle diseases, particularly in urban areas.

In all three countries, there is a need for more effective public health initiatives that promote **preventive care**, encourage **physical activity**, and address the **environmental and social determinants of health**. The importance of **community support** and **cultural practices**, such as the respect for elderly in Japan, should also be highlighted in policy development to enhance longevity in aging populations.

#### RECOMMENDATIONS

The findings from this study demonstrate that **healthy living** significantly impacts life expectancy, and lifestyle factors such as diet, physical activity, healthcare access, and environmental conditions are critical in determining the longevity of populations in China, Japan, and India. **Japan**

leads in life expectancy, owing to its holistic approach to health and longevity, while **China** and **India** continue to face challenges, particularly due to urbanization, pollution, and healthcare access disparities. Future research and policy initiatives should focus on promoting healthy diets, regular physical activity, and expanding healthcare access, particularly in rural regions, to improve public health outcomes in these countries. Further this study can be elaborated by the use of traditional medicine and its impact on people's health

## REFERENCES

- [1]. Buettner, D. (2008). *The Blue Zones: Lessons for Living Longer from the People Who've Lived the Longest*. National Geographic.
- [2]. J. (2006). *The Happiness Hypothesis*. Basic Books.
- [3]. Jacobi, D. (2011). *How to Live: A Search for Wisdom from Old People*. Bloomsbury USA.
- [4]. Liu, J., et al. (2019). "Health Effects of Urbanization in China: A Systematic Review." *The Lancet*.
- [5]. Yoshida, K., et al. (2020). "Dietary Habits and Longevity in Okinawa." *Journal of Nutritional Science*. Link: Cambridge.org
- [6]. Sharma, R., et al. (2018). "Urbanization and Rising Health Challenges in India." *International Journal of Public Health*. Link: Springer
- [7]. Government and International Reports:
- [8]. WHO. (2018). "Non-Communicable Diseases in India: A Country Profile." Link: WHO
- [9]. ICMR. (2019). "Urban Health: The Growing Burden of Non-Communicable Diseases in India." Link: ICMR
- [10]. National Institute on Aging (NIA). (2019). "Okinawa: The Secrets of Long Life." Link: NIA
- [11]. NFHS-5. (2020). "India's Health Status: The Growing Challenge of Urbanization." Link: NFHS
- [12]. World Bank. (2020). "Health and Urbanization: Impacts on Well-being in Developing Countries." Link: World Bank