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**Health Determinants**

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## Abstract

**Purpose** This study focuses on three major healthy people UAE domains aiming to investigate key health issues, including context, current burden, problems, domain development, and challenges. It outlines an objective for addressing health issue determinants, defines attainable goals, and establishes indicators for progress measurement.

**Methodology** In order to collect data and analyze the interpretations of the current burden, we conducted a literature review using previous studies, analyzed the variables and factors to address the problem, and finally set goals and indicators aiming to achieve the targets.

**Findings** Previous studies have demonstrated the significance of lifestyle-related diseases, life expectancy, health care services, health domains, and their challenges. Still, they lack initiatives and indicators for measuring the health outcome's progress. In this paper, we discuss goals that can be achieved and indicators that can be used to track development toward a more desirable state for the UAE population.

**Keywords:** *Health Determinants, Lifestyle-Related Diseases, Life Expectancy, Health Care Services, Healthy People*

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## INTRODUCTION

Healthy People aims to create a society where everyone can live a long, healthy, and fulfilling life. It establishes evidence-based objectives covering chronic diseases, healthy lifestyles, healthcare access, and health disparities. The initiative provides a roadmap for public health policies, programs, and interventions as a vital tool for health promotion and disease prevention. It empowers individuals to take charge of their health and encourages communities to implement evidence-based strategies to improve overall well-being (Healthy People 2030, 2023). By focusing on prevention and health promotion, Healthy People aims to reduce healthcare costs, increase productivity, and improve the quality of life for all Americans. By setting clear health objectives and inspiring collaborative action among stakeholders, Healthy People guides the nation toward improved health outcomes and a better future for all. This paper focuses on three main domains (life expectancy, quality of hospital services, and lifestyle-related diseases), where it investigates health issues, identifies current burdens, and discusses potential solutions. Our target population is the population of the United Arab Emirates (UAE). There is a need for a long-term strategic plan to address the issues that have been highlighted in recent studies, such as health problems and risk factors, along with some recommendations to mitigate their effects.

### Life Expectancy

Advances in medical sciences have improved global life expectancy, with life expectancies increasing from 32.0 years in 1900 to 66.3 years in 2000 (Galvani-Townsend et al., 2022). However, there are still significant differences in life expectancies across countries and territories. Social determinants play a crucial role in a population's quality and longevity of life, including factors such as education, economic stability, neighborhood, built environment, social and community context, and health care.

Shorter life expectancy can lead to various outcomes, including reduced quality of life, increased mortality rates, emotional and financial burdens on families, the strain on healthcare systems, economic consequences, pensions, and retirement planning, reduced knowledge and expertise, social and emotional effects, disparities and inequalities, and an impact on population growth. These outcomes can be influenced by factors such as access to healthcare, socioeconomic status, and lifestyle choices, resulting in a smaller workforce and potential economic implications. Additionally, shorter life expectancy can affect pension systems and retirement planning, reducing knowledge and expertise in specific fields. It is crucial to note that the outcomes of shorter life expectancy can vary significantly across different regions and populations. (Mackenbach et al., 2019)

It is crucial to remember that many things can influence the effects of a shorter life expectancy and may vary considerably across geographic locations and demographic groups. These outcomes can be mitigated, and life expectancy increased through efforts to improve public health, access to healthcare, education, and socioeconomic conditions.

The UAE's life expectancy in 2021 is **79** years (*Life Expectancy at Birth, Total (Years)—United Arab Emirates / Data*, n.d.). Despite significant improvements, Saudi Arabia and the UAE have yet to keep pace with other developed countries regarding increasing life expectancy (Wirayuda et al., 2023). therefore. We aim to raise life expectancy in the UAE to 85 years in 10 years. Thus, we target raising the life expectancy in the UAE to 85 years by 2035. Taking into account societal, economic, and demographic trends as a whole

Education plays a significant role in prolonging life expectancy, as it impacts both well-being and caliber. Higher educational attainment can account for up to 30% of adult life expectancy in the US. (Galvani-Townsend et al., 2022). Economic stability, including employment and income, is another critical area influencing population health. Gross domestic product (GDP) is linked to morbidity and mortality performance in a given population, making the integration of economic stability essential for understanding the longevity of life.

Neighborhoods and built environments are also intrinsically tied to an individual's life expectancy. Pollution, respiratory infections, chronic diseases, and air quality can significantly impact childhood health and morbidity. Unintentional injuries, such as road accidents, can lead to premature death. Social indicators like substance abuse can provide insight into an individual's everyday behavior and help cope with stressors.

Health care is an essential social determinant of health that impacts life expectancy. Research shows lasting effects on individual health, including malnutrition and immunosuppression. Regular visits to primary healthcare providers can identify issues like malnutrition and preventative immunizations early on, reducing the likelihood of disease development later in life. (Galvani-Townsend et al., 2022)

Access to health care is the most important social determinant, as it provides individuals with increased access to primary, secondary, and tertiary prevention services and treatment. Understanding the role of publicly funded health care in prolonging life expectancy is crucial for promoting overall health and well-being.

A study found that the average life expectancy was greater in nations and territories with publicly funded health care than in those without. (Galvani-Townsend et al., 2022) Moreover, publicly funded healthcare is crucial for health by reducing costs and ensuring equitable access. However, a lack can create barriers for vulnerable populations and delay disease diagnosis, potentially leading to fatal outcomes. Early entry into care is crucial for reducing disability, morbidity, and mortality risks.

Long-term health outcomes may suffer if attention is paid only to disease and morbidity without considering broader economic and sociodemographic factors. Smoking, low income, and high body weight are major risk factors contributing to life expectancy gaps (Mackenbach et al., 2019). The prevalence of obesity and other non-communicable diseases makes it even more essential to promote health literacy and sociocultural strategies that encourage healthier lifestyle choices, especially in places like Saudi Arabia and the United Arab Emirates. Including these considerations in public health plans increases the likelihood of a thorough and productive strategy for enhancing population health.

To track progress towards increasing the UAE's life expectancy to 85 years in 10 years, consider the following indicators: Current Life Expectancy, Annual Progression, Healthcare Infrastructure, Healthcare Spending, Disease-Specific Mortality Rates, Public Health Initiatives, Child and Maternal Mortality Rates, Healthy Lifestyle Adoption, Environmental Factors, and Social Determinants of Health These indicators help establish a baseline, monitor annual growth, evaluate healthcare infrastructure, track healthcare spending, assess disease-specific mortality rates, assess public health initiatives, monitor child and maternal mortality rates, measure healthy lifestyle adoption, monitor environmental factors, and address social

determinants of health. By involving experts, policymakers, and stakeholders, the UAE can work towards achieving its goal of 85 years in 10 years.

### **Quality of Hospital Services**

The UAE has made significant strides in healthcare since its unification in 1971, with 8.2 million residents using modern facilities. The growing population has increased the demand for medical professionals and facilities, with the healthcare market expected to reach Dh 3.5–4 billion by 2018. The UAE government is encouraging the establishment of more private hospitals and has opened 106 primary healthcare centers. The WHO ranks the UAE 27th in healthcare quality out of 191 countries. (Al-Neyadi et al., 2016)

Our goal is to increase the quality of health services in the UAE. The target is for the UAE's healthcare system to be among the top five in the world by 2035, out of a total of 191 countries surveyed by the WHO. To succeed, it will be necessary to study the foundations of quality.

Moreover, healthcare quality relies on positive patient-provider cooperation, influenced by individual and contextual factors like the healthcare organization, system, and environment. This collaboration contributes to overall patient satisfaction and the overall healthcare experience. Effective management of healthcare resources, personnel, and processes, as well as provider cooperation and collaboration, can all contribute to better overall healthcare quality.

Hospital service quality is crucial for health outcomes and patient satisfaction. Poorly managed hospitals may have higher rates of medical errors, nosocomial infections, delayed diagnosis, lack of continuity, medication mismanagement, understaffing, burnout, patient safety concerns, poor communication, outdated infrastructure, and limited access to specialized services. A multi-faceted approach should address these issues, including improving hospital management, investing in staff training, enhancing technology and infrastructure, and fostering a patient-centered culture. Regular audits, accreditation programs, and patient feedback can help identify improvement areas and ensure better patient health outcomes.

Workload, pay, quality of life, and leadership were all found to be significant barriers to providing high-quality public healthcare services (Mosadeghrad, 2014). Clear connections were also found between staff happiness, care quality, and patients' perceptions of their experiences. Improved outcomes and happier patients directly result from attentive human resource management that fosters a positive work environment and employee loyalty.

Decision-makers in the healthcare industry can improve patient care by employing various quality management tools and techniques. However, the widespread adoption of quality management models needs to be enhanced by several structural constraints. Effective quality management faces significant challenges due to the system's centralization, bureaucracy, and reliance on the government's hierarchical structure. (Mosadeghrad, 2014) It is recommended that an accreditation council be established to oversee the accreditation program. At the same time, the Ministry of Health is responsible for setting health policy, providing healthcare, and conducting service evaluations.

Healthcare facilities must equip employees with the necessary tools and support to provide excellent care. A quality-oriented information system is essential for analyzing processes and prioritizing quality issues. Human capital, including skills, experience, and knowledge acquired on the job, should be utilized by healthcare managers to attract and retain top talent. University educators should play a significant role in preparing healthcare organizations for

ongoing professional development. Employee compensation should reflect their contribution to the company's success and customer satisfaction.

Social capital, including a sense of duty and obligation to fellow citizens and human beings, is crucial for boosting social capital. Regulatory bodies should maintain a registry of professionals, establish standards for education and training, mandate continuing professional development, and offer guidance on standards and ethics.

To effectively implement quality management, there must be a shift in how people think about and talk about quality. Healthcare providers can only deliver high-quality patient care if they work together. In some countries, authority is top-down, and employees need more agency and support from managers. Teaching today's kids about teamwork and prioritizing the customer can make a difference in the future.

Leadership capital refers to a leader's influence and ability to steer a group toward success. To better serve employees and customers, managers should hone their leadership abilities, create a shared vision for the company's future, and alter their core values and culture.

Healthcare providers have unique service methods, resulting in variability in service quality. Patients' judgments of service quality vary, and patient satisfaction is a valid indicator of service quality. Service quality consists of technical and functional dimensions, with satisfaction indicating the success of service organizations. However, patients often focus on applicable quality to evaluate health services, as they need more medical expertise to assess technical attributes. A study in Abu Dhabi (Al-Neyadi et al., 2016) highlights several factors contributing to improving healthcare in Abu Dhabi over the past two years. The low level of patient satisfaction in 2013 was reported, but recent advances have increased patient satisfaction in public and private hospitals. Patients now trust local hospitals' expertise, services, and technology, with nurses playing a crucial role in enhancing the patient experience. Communication with patients has improved, and language barriers are no longer constrained. There is no discernible difference between private and public healthcare institutions concerning patient satisfaction, and public hospitals are keeping up with the competition in the local healthcare market. According to the study, patients in both public and private hospitals in the Middle East region were provided with satisfactory care. The study's findings are more credible as inpatients have extended hospital stays, allowing them to experience the services provided on an extended basis. Improvements in tangibles, reliance, empathy, and responsiveness can raise patient satisfaction levels.

In addition, the MARGOLIS (2003) study assessed the suitability of an Arabic patient satisfaction questionnaire for surveying healthcare consumers of traditional Arabic backgrounds. A cross-sectional survey was conducted using an Arabic language questionnaire, comparing the satisfaction levels of resource-intensive and resource-thrifty clinics. Results showed that older individuals had higher satisfaction with comprehensiveness, while younger individuals had the same satisfaction. Highly educated individuals had lower satisfaction for effectiveness, but both men and women had equal satisfaction levels.

Improving health and gaining people's trust require health systems to deliver high-quality care. It is time for a fresh perspective and increased funding for determinants of health. (Kruk et al., 2018)

### **Lifestyle-Related Diseases**

Medical conditions primarily influenced by unfavorable lifestyle choices, environmental factors, and genetic predispositions are called non-communicable diseases (NCDs). Poor lifestyle choices like eating poorly, not getting enough exercise, smoking, drinking too much alcohol, and experiencing persistent stress play a role in these diseases' gradual onset and progression.

According to the World Health Organization, "affluent society diseases" like high blood pressure, heart attacks, and lung cancer account for 70–80% of deaths in the industrialized world and 40–50% in developing countries. Poor dietary habits, inactivity, and tobacco use all contribute to these illnesses. (*Lifestyle Disease: World Problems and Global Issues | The Encyclopedia of World Problems*, 2016) Furthermore, the leading cause of non-communicable disease mortality is cardiovascular disease (17.9 million deaths annually), followed by cancer (9.3 million), chronic respiratory disease (4.1 million), and diabetes (2.0 million, not including deaths from diabetes-related kidney disease) combined (World Health Organization, 2022b).

Research conducted Eleven systematic reviews met the criteria and were evaluated. Obesity, inactivity, diabetes, metabolic syndrome, and hypertension were reported as the most prevalent risk factors for cardiovascular disease. One of the countries with the highest rates of female obesity in the world can be found in the countries of the Gulf Cooperation Council, where the percentage of overweight women ranges from 29.7 percent to 45.7 percent. Among the top ten factors reported worldwide, diabetes prevalence stands at an average of 21%. Between 20.9% and 53.3% of adults had hypertension. According to the findings, the rising tide of women's chronic illness in the Gulf Cooperation Council (GCC) is a social and political time bomb that must be defused through urgent action. These results emphasize the importance of coordinated efforts by the GCC to improve the regulatory framework and thereby reduce and manage the prevalence of these factors. (Alshaikh et al., 2017)

Diseases like diabetes and obesity, classified as non-communicable, have increased rapidly in the United Arab Emirates in recent years, accounting for 76% of deaths in the country. Diabetes is becoming an epidemic worldwide, according to statistics, and it is not just in developed nations. Among developing economies, Saudi Arabia has the highest prevalence of diabetes, with over 20% of the population affected. According to 2017 estimates from the International Diabetes Federation, over 17% of the UAE's adult population is diabetic. Rapid economic growth, sedentary lifestyles, and unhealthy diets all contribute to an increase in diabetes prevalence in the UAE that outpaces regional and global averages. By 2040, experts predict that 2.2 million people will have the disease. (Spencer, 2019)

Additionally, a cross-sectional study assessed the determinants of blood pressure among entry-year students at a medical university in Ajman, UAE. (Sreedharan et al., 1970) A study of 100 students found a significant association between gender and blood pressure, with 70% having normal blood pressure. Nearly half of those who slept less than 6 hours had pre-hypertension or hypertension. Body mass index (BMI) also affects normal, pre-hypertension, and hypertension. These findings can help raise awareness about the dangers of increased blood pressure among obese and non-obese students.

Therefore, Healthy People UAE 2025 aims to improve or reduce, if not eliminate, these lifestyle-related diseases in the UAE population, which cause chronic diseases and increase mortality and morbidity rates in the UAE. Our target is that by 2030, the percentage of lifestyle-

related conditions will be reduced by 15–30%, and by 2035, 45%–65% will be reduced by encouraging people and raising awareness of this issue.

Through nutrition, physical activity, and obesity, indicators will measure adults who get the recommended amount of aerobic exercise and strength training, childhood and adolescent obesity, and adult obesity. Moreover, the average amount of vegetables consumed per day (*Healthy People: HP2020: Leading Health Indicators at a Glance*, 2019). We will collect and analyze the data in collaboration with the Ministry of Health and conduct surveys.

The study by Baniissa et al. (2020) found that physical activity and fruit and vegetable intake are linked to obesity. Urbanization and lifestyle shifts in the UAE have led to a decline in fruit and vegetable consumption, making it a public health priority to encourage healthy lifestyles among teenagers. Targeted nutrition and physical activity programs can improve health outcomes. Female participants were likelier to have a high body mass index (BMI) and abdominal obesity (AO), while male participants had a higher BMI and AO. The UAE Ministry of Health, schools, parents, and students must collaborate on a unified health promotion approach. Early screening of AO markers and promoting healthy lifestyles are crucial for combating obesity and preventing chronic diseases.

Preventing lifestyle-related diseases involves a healthier lifestyle by focusing on a balanced diet, being physically active, and getting enough sleep. Moreover, an Elamin et al. (2021) study found that Emirati children have lower physical activity levels than non-Emirati children due to cultural practices. The UAE's young society has improved facilities, but Emirati parents may need more access. Sports clubs are not fully embraced, potentially affecting physical activity. Strategies like avoiding tobacco, alcohol, stress management, and limiting sedentary activities can reduce the risk of developing these conditions and lead a healthier life.

From a healthy diet that prevents the buildup of unwanted body fats and helps eliminate body toxins to an active physical lifestyle to strengthen cardiovascular and burn fats, unclog the veins from cholesterol buildup, and prevent cardiac arrest and strokes. Moreover, the UAE population faces a high prevalence of high-risk lifestyle-related behaviors, including overweight or obesity, unhealthy dietary habits, and physical inactivity. Age, gender, ethnicity, and economic status significantly influence these behaviors. Most participants have at least one cardiovascular disease (CVD) risk factor, with more general population, males, and economically underprivileged individuals in the high-risk group. Self-reported diabetes, hypertension, and hypercholesterolemia are also prevalent among these groups. The study's data can help create a culture that promotes healthy behaviors among various subgroups. (Sami Khan et al., 2021)

Promoting awareness of lifestyle-related diseases in the UAE through social media and government programs is crucial. Maintaining a healthy lifestyle through diet, exercise, substance use, and stress management can prevent these diseases. Early diagnosis and treatment can reduce their adverse effects, and regular medical visits are essential for overall well-being.

## **Conclusion**

Achieving a healthy society requires a comprehensive approach that addresses physical, mental, and social well-being. It requires cooperation from individuals, communities, governments, and organizations. Key steps include promoting health education and awareness, ensuring equitable access to healthcare, promoting healthy lifestyles, addressing health equity




and social determinants, involving communities in health initiatives, and utilizing technology and innovation to improve healthcare access, data analysis, and health monitoring. Achieving a healthy public is an ongoing process that requires sustained commitment from all stakeholders and adapting strategies to changing circumstances and emerging health challenges to ensure the well-being of society as a whole.

## Healthy People UAE 2025-2035 Poster

### WHAT ARE LIFESTYLE-RELATED DISEASES?

Diseases that are directly attributable to a person's way of life are known as non-communicable diseases (NCDs). Heart disease, type 2 diabetes, obesity, hypertension, lung disease, cancer, chronic kidney disease, and depression are all examples of such conditions.

Heart disease, diabetes, cancer, joint pain, and high blood pressure are just some of the health problems that can be affected by one's way of life.



### UAE'S HEALTHY PEOPLE 2025-2035 LIFESTYLE-RELATED DISEASES

### OUR OBJECTIVE

Healthy People UAE 2025-2035 aims to improve or reduce, if not eliminate, these lifestyle-related diseases in the UAE population, which causes chronic diseases and increases morbidity and mortality rates in the UAE.

### HEALTH INDICATORS

NUTRITION, PHYSICAL ACTIVITY, AND OBESITY

- ADULTS WHO MEET AEROBIC AND MUSCLE-STRENGTHENING TARGETS
- OBESITY AMONG ADULTS
- OBESITY AMONG CHILDREN AND ADOLESCENTS.
- MEAN DAILY INTAKE OF TOTAL VEGETABLES

### Our Target

By 2030, the percentage of Lifestyle-related diseases will be reduced by 15-30%, and by 2035, 45%-65% reduced.

### Conclusion

Adopting healthier behaviors, such as a balanced diet, regular physical activity, abstaining from tobacco and alcohol, stress management, regular health check-ups, and promoting public health efforts, are critical for preventing lifestyle-related diseases.

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Figure 1: Healthy People UAE 2025-2035 Poster

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