

**Care, communication  
and biomedical  
challenges**



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# From ancient roots to modern challenges: tracing the history and evolution of healthcare in sri lanka

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## Background

This analysis explores the development of healthcare in Sri Lanka, tracing its journey from ancient practices to the modern systems in place today. Understanding this history helps us grasp the complexities of current challenges and the measures taken to address them. With a population of 22.16 million, the nation enjoys commendable health standards, ranking 73<sup>rd</sup> on the Human Development Index and having a life expectancy of 77.39 years in 2022. However, Sri Lanka also faces significant public health issues, such as the highest suicide rate in Southeast Asia, indicating broader socio-economic and mental health challenges. The ageing population further increases the healthcare burden due to the rise of age-related diseases.

## Ancient healthcare practices

In ancient Sri Lanka, healthcare was deeply connected with the island's cultural and religious life. Kings like Pandukabhaya (437-367 BC) and Buddhadasa (341-370 AD) were pioneers in promoting health services. King Pandukabhaya established hospitals for people and animals in Anuradhapura, known as Sivikasala and Sotthisala. King Buddhadasa, often called the

physician king, wrote medical treatises and built hospitals. He also conducted medical seminars like the one at Nalanda, India.

Hospitals were frequently built near monasteries, where monks provided medical care, illustrating the synergy between religion and health. These early practices included a rich understanding of herbal medicine and advanced surgical techniques, documented in ancient scripts and supported by archaeological findings. For instance, the *Karmavibhaga*, a Sinhala text from the 11<sup>th</sup> to 13<sup>th</sup> centuries, refers to foetology and describes the suffering a fetus endures at birth, noting that “the fetus will be torn to pieces with sharp instruments if it assumes a transverse position at the time of birth.” Monks often acted as healers, using their knowledge of herbs and traditional practices to treat the sick. Texts like the ‘*Visuddhimagga*’ by Buddhaghosa Thero in the 15<sup>th</sup> century and the ‘*Sarartha Sangrahaya*’ highlight the sophisticated medical knowledge of the time, demonstrating a balanced approach to preventive and curative healthcare. The medical knowledge detailed in these Sinhala texts can be confirmed by the discovery of probes, forceps, scissors, and scalpels at Polonnaruwa, dating to the 12<sup>th</sup> century. These instruments, which were recently found, provide tangible evidence of the advanced surgical practices described in historical documents. Additionally, the ruins of a hospital in Mihintale, built by King Sena in the 9<sup>th</sup> century, are considered one of the world’s oldest hospitals, showcasing the advanced infrastructure and commitment to healthcare in ancient Sri Lanka.

### **Colonial influence and the post-Independence development**

Sri Lanka’s healthcare system underwent significant changes during Portuguese, Dutch, and British rule. Each colonial power introduced its medical practices, infrastructure, and educational systems, altering indigenous healthcare. The Portuguese established modern hospitals along the coast, bringing European medical practices to the island. The Dutch expanded these services and documented local medicinal knowledge. However, the most significant changes came during British rule. The British established the Colombo Medical Faculty in 1870, marking the start of formal medical education in Sri Lanka. They also initiated public health campaigns, improved sanitation, and expanded hospital infrastructure, laying the

groundwork for the modern healthcare system. These colonial influences created a dual healthcare system that integrated Western medical practices with traditional Ayurvedic medicine, a legacy still present in Sri Lanka today.

After gaining independence in 1948, Sri Lanka focused on expanding and consolidating its healthcare system to ensure equitable access across the island. The integration of Ayurvedic medicine with Western practices continued, with significant government investment in healthcare infrastructure, training, and public health initiatives. Efforts were made to improve maternal and child health, vaccination programs, and the eradication of infectious diseases. The establishment of the Ministry of Health was crucial in coordinating these efforts extending health services to remote areas. The government's recognition of health as a fundamental human right guided policies prioritizing universal healthcare and equity. Significant progress has been made in reducing mortality rates, improving life expectancy, and controlling infectious diseases, though challenges remain in addressing the rising burden of non-communicable diseases.

### **Modern healthcare challenges and neurodegenerative diseases**

The healthcare system in the nation faces the dual challenge of managing rising non-communicable diseases (NCDs) and addressing healthcare access inequalities. Economic turmoil and the COVID-19 pandemic have stressed the system, exposing vulnerabilities in public health infrastructure. NCDs like diabetes, cardiovascular diseases, and cancers are increasing, requiring a shift to chronic disease management. Socioeconomic disparities lead to substandard care for rural and impoverished populations. Additionally, the growing prevalence of neurodegenerative diseases among the aging population is a significant concern. Initiatives like the nEUROcare project aim to improve the management of conditions like dementia, affecting nearly 4% of older adults. However, the lack of comprehensive aged care burdens families, highlighting the need for a stronger institutional framework. Success in addressing these issues depends on sustainable healthcare financing, public awareness, and integrating specialized services into the broader system.

### **Modern Healthcare System, future directions and innovations**

The national healthcare system operates through a network of primary, secondary, and tertiary care facilities that provide free services to the population. Recent technological enhancements, including electronic health records and advanced surgical techniques, have improved patient outcomes and efficiency. The public sector dominates healthcare delivery, emphasizing accessibility and equity. Despite challenges, the system has been resilient, providing critical services even during economic downturns and public health crises. However, modernization is needed, particularly in health information systems, medical training, and infrastructure development. The private sector also plays a crucial role, in offering specialized services and reducing the burden on public facilities.

Looking ahead, Sri Lanka aims to harness technology and innovation to enhance its healthcare system. This includes expanding telemedicine to reach remote areas and using predictive analytics and big data to improve health service planning and disease management. Community health worker programs are being expanded to provide essential services and education at the grassroots level. Innovations such as AI in disease management, advanced drug delivery systems, and policy simulation models are being explored to improve healthcare outcomes and efficiency. These advancements aim to create a more responsive and proactive healthcare system that can address health issues before they become critical. Sustainable healthcare financing models are also being developed to ensure healthcare remains accessible and affordable for all citizens, regardless of economic conditions.

### **Conclusion**

The historical evolution of healthcare in Sri Lanka, from its ancient roots to the present, reveals a complex interplay of cultural, religious, and colonial influences. As Sri Lanka faces new challenges, it is essential to leverage its rich historical heritage and innovative technologies to ensure a resilient, efficient, and equitable healthcare system for all its citizens. This ongoing evolution, while challenging, provides a blueprint for sustainable health development and a healthier future for the Sri Lankan population.

By understanding and building on its history, Sri Lanka can navigate the complexities of modern healthcare and improve outcomes for all its citizens, ensuring that health remains a fundamental right for generations to come.