

# Modernisation of Indian Medical Services in Armed Forces: A Detailed Perspective

---

## Introduction

The health and well-being of Armed Forces personnel and their families are critical to maintaining operational readiness, morale, and force effectiveness. Modernising medical services in the Indian Armed Forces involves an integrative approach that addresses physical fitness, lifestyle diseases, mental health, cutting-edge care, and leveraging advanced technologies. Below is a comprehensive perspective with actionable recommendations.

### Strategic Modernisation of Infrastructure.

**Upgrade Existing Facilities.** Renovate and expand hospitals, diagnostic centres, and field medical units with state-of-the-art equipment and global medical standards.

**Artificial Intelligence (AI)-Driven Diagnostic Centres.** Deploy AI-enabled diagnostic tools in hospitals for faster and more accurate diagnosis of diseases.

**Telemedicine Expansion.** Develop robust telemedicine networks to provide expert consultations and remote healthcare for personnel deployed in remote or conflict-prone areas.

**Mobile Field Hospitals.** Introduce modular and rapidly deployable field hospitals equipped with advanced diagnostic and treatment tools for combat zones and disaster relief.

**Dedicated Fitness Centres.** Build integrated fitness centres in garrisons, equipped with facilities for physical training, rehabilitation, and counselling to address fitness and lifestyle challenges.

### Combating Lifestyle Diseases and Promoting Physical Fitness.

**Awareness Campaigns.** Organise regular awareness drives on the prevention and management of lifestyle diseases like diabetes, hypertension, obesity, and cardiovascular conditions.

**Comprehensive Fitness Program.** Implement structured fitness regimens tailored to service members' roles and age groups. Use technology like fitness trackers to monitor individual physical activity, sleep patterns, and overall health.

**Incorporation of Traditional Practices.** Integrate yoga, meditation, and ayurvedic dietary principles to promote holistic wellness.

### Nutrition and Diet Plans.

Provide diet plans designed by professional nutritionists focusing on balanced diets and reducing risks of obesity and lifestyle illnesses. Designing healthy menus for Indian Armed Forces personnel requires a comprehensive approach that accounts for their diverse cultural, ethnic, and regional preferences while meeting the nutritional demands of their physically intensive roles. The Army Service Corps (ASC) can centrally coordinate this effort by creating standardised yet adaptable dietary plans. These menus should incorporate regionally preferred staples, such as rice, wheat, and millets, alongside nutrient-rich superfoods like lentils, vegetables, lean proteins, and healthy fats. High-altitude units could receive energy-dense foods like dried fruits and nuts, while field troops could benefit from portable, ready-to-eat

options. Vegetarian, vegan, and religiously appropriate meal options should be readily available to ensure inclusivity. Leveraging technology for menu planning, procurement, and supply chain optimisation can ensure fresh, quality ingredients across all locations. Regular feedback and health monitoring systems would further refine these dietary initiatives, fostering improved fitness, morale, and operational readiness in the Armed Forces.

### **Preventive Screenings.**

Conduct regular screenings for early detection of chronic diseases and offer wellness programs for families, as is done for regular troops.

### **Emphasis on Mental Health and Well-being.**

**Mental Health Support.** Establish mental health units in all military hospitals staffed with psychologists and psychiatrists. Conduct regular mental health assessments and therapy sessions.

**Digital Mental Health Platforms.** Create secure mobile apps for anonymous counselling, mental health tips, and mindfulness practices.

**Crisis Intervention Teams.** Train specialised teams in suicide prevention, trauma care, and conflict resolution.

**Family-Centric Mental Health Program.** Extend mental health workshops and counselling services to the families of personnel to address their unique challenges.

**Resilience Training.** Develop tailored programs to address stress, trauma, and anxiety specific to the challenges of military life.

**Peer Support Programs.** Train service members to act as mental health ambassadors, creating a network of peer support.

### **Advanced Medical Training and Research.**

**Skill Development.** Provide Armed Forces medical personnel with access to training in emerging fields like AI-based diagnostics, robotic surgery, and genomics.

**International Fellowships.** Offer fellowships for medical officers in top international medical institutions to gain exposure to the latest advancements.

**Research on Military-Specific Conditions.** Focus on research and development efforts on illnesses like frostbite, heatstroke, and altitude-induced illnesses unique to military operations. Establish centres dedicated to battlefield medicine, regenerative therapies, and telehealth innovations. Partner with leading academic and research institutions for collaborative projects.

### **Integration of Digital Health Technologies.**

**Electronic Medical Records (EMRs).** Implement a unified EMR system for seamless tracking of medical histories across all Armed Forces facilities. Use blockchain technology to ensure the secure and transparent handling of medical records.

**Wearable Health Devices.** Equip personnel with wearable devices to monitor health parameters in real-time, ensuring timely medical intervention.

**AI and Data Analytics.** Leverage AI for predictive health analytics to identify and mitigate potential health risks.

### **Holistic Family Care.**

**Preventive Healthcare Access.** Extend preventive screenings, vaccinations, and wellness programs to service families.

**Child and Maternal Care.** Ensure robust facilities for maternal and paediatric care with specialised attention to families in remote postings.

**Family Counselling Services.** Offer counselling services to address the unique challenges of military families, including frequent relocations and separations.

**Educational Health Camps.** Organise camps for families on managing lifestyle diseases, mental health, and child nutrition.

**Community Wellness Initiatives.** Set up wellness centres within military housing areas offering yoga, fitness classes, and stress management workshops.

**Geriatric Support.** Expand specialised care units for elderly dependents.

### **Leveraging Public-Private Partnerships (PPPs).**

**Collaborations for Specialised Care.** Partner with top private hospitals and institutions for advanced care, including organ transplants and cancer treatments.

**Pharmaceutical Access.** Work with pharmaceutical companies for uninterrupted supply of essential medications and cutting-edge treatments.

**Innovation through Startups.** Engage health-tech startups for developing and implementing innovative healthcare solutions.

### **Preparedness for Disasters and Crises.**

**Strengthening Capabilities.** Conduct regular drills and simulations to prepare medical teams for disasters, pandemics, and mass casualty scenarios.

**Stockpiling and Logistics.** Maintain strategic reserves of medical supplies and enhance logistics for rapid deployment.

**International Collaboration.** Participate in joint exercises and partnerships with allied nations to improve global health crisis management.

### **Policy and Financial Investments**

**Increased Funding.** Allocate higher budgets for modernising healthcare infrastructure, training, and research initiatives.

**Streamlined Procurement.** Reform procurement policies to facilitate faster acquisition of cutting-edge medical technologies.

**Veteran Medical Support.** Ensuring seamless access to quality healthcare for veterans and their families under the Ex-Servicemen Contributory Health Scheme (ECHS) is critical. Streamlining services can be achieved by digitising operations through a unified platform for online appointment booking, teleconsultations, and automated claims processing, reducing administrative delays. Expanding the network of empanelled hospitals, especially in remote areas, along with dedicated ECHS help-desks at hospitals, will improve accessibility and service delivery. Introducing smart ECHS cards with embedded medical history and enabling home healthcare for elderly and immobile veterans can further enhance convenience. Regular policy reviews, preventive health initiatives, and robust grievance redressal mechanisms will ensure that the ECHS remains responsive to the evolving needs of veterans, offering them dignified and efficient healthcare services.

### **Expected Outcomes**

Enhanced physical and mental resilience of Armed Forces personnel.

Improved management and reduction of lifestyle diseases.

Strengthened morale and operational effectiveness of the force.

Establishment of Indian Armed Forces medical services as a global leader in military healthcare innovation.

By integrating modern technology, fostering a proactive approach to health, and prioritising lifestyle disease management and physical fitness, the Indian Armed Forces can ensure the holistic well-being of personnel and their families, enabling them to meet the demands of military life with resilience and efficiency.

**Lt Gen Narendra Kotwal, AVSM, SM, VSM (Retd)**, a distinguished endocrinologist, has a long career in the Armed Forces, retiring as Commandant of AFMC, Pune. With extensive academic credentials (MD, DNB, MNAMS, MPhil, DM, FRCP Edin), he has significantly contributed to medical research with 105 publications. As the President of the Endocrine Society of India, he plays a key role in advancing endocrinology in India. Additionally, he serves as the National Coordinator for National Board of Examinations in Endocrinology creating webinars and actively shaping medical education and training in the field.

**Uploaded on 14-1-2025**

**Disclaimer :** The views expressed are those of the author and do not necessarily represent the views of the organisation that he/she belongs to or of the USI of India.