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The Heritage on Our Plates: Reviving Traditional Diets for Modern Wellbeing

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ABSTRACT

Traditional dietary patterns, developed over centuries, offer balanced nutrient profiles, cultural sustainability, and health benefits that are increasingly relevant in addressing modern diet-related chronic diseases. With rising rates of non-communicable diseases (NCDs) such as cardiovascular disease, type 2 diabetes and obesity, global interest in diets like the Mediterranean, Indian traditional, Japanese and Nordic patterns has surged. These diets are rich in whole grains, fresh vegetables, fruits, legumes, nuts, healthy fats and fermented foods and low in processed sugars and trans fats. This review synthesizes recent literature (2018–2025) on the nutrient composition, health outcomes and potential integration strategies of traditional diets in contemporary health systems. Also explore the challenges of preserving cultural dietary practices in an era dominated by fast food and ultra-processed products. Data indicate that adopting traditional diets can reduce cardiovascular risk by up to 30%, improve glycaemic control, and support gut microbiota diversity, leading to improved overall well-being. The review concludes with recommendations for policymakers, healthcare providers, and individuals to adapt and sustain these dietary patterns in the modern context.

Introduction

Non-communicable diseases (NCDs) have emerged as the leading cause of mortality worldwide, accounting for 74% of all global deaths in 2022 (World Health Organization, 2023). Cardiovascular diseases (CVDs) alone are responsible for approximately 17.9 million deaths annually, followed by cancers (9.3 million), chronic respiratory diseases (4.1 million), and diabetes (2 million). In India, the burden is particularly alarming, with NCDs contributing to nearly 65% of all deaths and lifestyle-related risk factors—unhealthy

diet, physical inactivity, and obesity—playing a central role (ICMR, 2024). Modern diets, characterized by high intakes of refined carbohydrates, saturated fats, added sugars, and processed foods, have been strongly linked to increased risk of obesity, metabolic syndrome, and premature mortality. In contrast, traditional dietary patterns—shaped by geography, agricultural practices, and cultural heritage—are inherently nutrient-rich, sustainable, and protective against chronic disease.

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The Mediterranean diet emphasizes olive oil, whole grains, legumes, and moderate fish consumption; the Indian traditional diet incorporates diverse cereals, pulses, spices, and fermented dairy; the Japanese diet features fish, seaweed, rice, and seasonal vegetables; and the Nordic diet is rich in root vegetables, berries, whole grains, and fatty fish (Petkoska et. al, 2025).

This review aims to summarize the nutrient profiles of major traditional diets and evaluate evidence linking these diets to reduced NCD risk. This study also identifies challenges in maintaining traditional diets in a modern context, propose strategies for integrating these diets into public health promotion. By combining cultural heritage with modern nutritional science, traditional diets could serve as a bridge between sustainable food systems and improved population health.

Methods

This review followed a narrative approach to synthesize evidence on traditional diets and their relevance to modern health. Literature search was conducted from January 2018 to July 2025 across the databases PubMed, Scopus, and Google Scholar.

Inclusion Criteria : Peer-reviewed studies published between **2018–2025**. Human studies (observational, clinical trials, meta-analyses). Studies reporting nutrient composition or health outcomes of traditional diets

Data Extraction & Synthesis : Relevant information was extracted on nutrient composition of traditional diets, key bioactive compounds, geographic or cultural variations and challenges in maintaining traditional diets. The extracted data were organized into comparative tables and thematic sections.

Diet Type	Energy (kcal/day)	Carbohydrate (%)	Protein (%)	Fat (%)	Saturated Fat (%)	Fiber (g/day)	Key Micronutrients	Bioactive Compounds
Mediterranean	2000–2500	45–50	15–20	30–35	<8	25–30	Vitamin E, C, folate, potassium	Polyphenols, omega-3s
Indian Traditional	1800–2200	55–65	10–15	20–25	<7	30–40	Iron, zinc, vitamin B12 (veg diet often low)	Curcumin, catechins
Japanese	1800–2100	55–60	15–20	20–25	<7	20–25	Iodine, vitamin A, omega-3s	Isoflavones, antioxidants
Nordic	2000–2300	45–50	15–20	30–35	<8	25–35	Vitamin D, selenium	Lignans, omega-3s

Overview of Major Traditional Diets

Mediterranean Diet

The Mediterranean diet, rooted in the eating patterns of countries bordering the Mediterranean Sea (Greece, Italy, Spain), is recognized by UNESCO as an Intangible Cultural Heritage. It is characterized by:

- **High intake** of fruits, vegetables, whole grains, legumes, nuts, and olive oil as the main fat source
- **Moderate intake** of fish, poultry, and dairy
- **Low intake** of red meat and sweets

- Moderate wine consumption (optional and culturally specific)

Health Impacts: Meta-analyses show adherence to the Mediterranean diet reduces cardiovascular disease (CVD) risk by 25–30%, lowers blood pressure, improves lipid profiles, and has anti-inflammatory effects. The diet is rich in polyphenols, omega-3 fatty acids, and dietary fiber, all of which contribute to improved glycaemic control and reduced oxidative stress.

Indian Traditional Diet

India's traditional dietary patterns vary regionally but share common elements:

- Base foods: whole grains (millets, rice, wheat), pulses, seasonal vegetables, spices, and fermented products
- Cooking methods: boiling, steaming, light frying with vegetable oils or ghee
- Cultural aspects: strong emphasis on vegetarianism in many communities; fasting and food rituals linked to Ayurveda

Health Impacts: Traditional Indian diets are naturally high in dietary fiber (up to 40 g/day) and rich in bioactive phytochemicals such as curcumin (turmeric), catechins (tea), and capsaicin (chili peppers). Evidence shows they can help reduce type 2 diabetes incidence and manage obesity. However, urbanization has led to refined carbohydrate dominance and reduced micronutrient diversity in modern Indian diets.

Japanese Diet

The Japanese traditional diet (Washoku) includes:

- Staples: rice, miso soup, fish, seaweed, soy products, pickled vegetables
- Low intake of red meat and dairy
- Frequent inclusion of fermented foods such as natto and miso
- Small portion sizes and balanced meal composition (Ichiju-sansai principle: one soup, three side dishes)

Health Impacts: Japan has one of the highest life expectancies globally (84.4 years, WHO 2024). The diet's omega-3-rich seafood, antioxidants from vegetables and seaweeds, and soy isoflavones contribute to reduced rates of CVD, certain cancers, and osteoporosis.

Nordic Diet

The Nordic diet, inspired by the traditional foods of Denmark, Sweden, Norway, Finland, and Iceland, features:

- Whole grains: rye, barley, oats
- Local fruits: berries, apples, pears
- Protein sources: fish (especially salmon, herring), legumes
- Fats: rapeseed (canola) oil, nuts, seeds

Health Impacts: The Nordic diet has been associated with improved lipid profiles, reduced inflammation, and better weight management. Its high fiber and lignan content supports gut microbiota diversity, while marine omega-3s aid in reducing CVD risk.

Role of Traditional Diets in Preventing Modern Lifestyle Diseases

Cardiovascular Diseases (CVDs)

Traditional diets, particularly the **Mediterranean** and **Nordic** dietary patterns, are rich in whole grains, legumes, fruits, vegetables, nuts, and fish — all of which contribute to improved lipid profiles, reduced blood pressure, and lower systemic inflammation (Smith et al., 2023). High intakes of monounsaturated fatty acids (MUFA) from olive oil and polyunsaturated fatty acids (PUFA) from marine sources reduce low-density lipoprotein cholesterol (LDL-C) while maintaining or increasing high-density lipoprotein cholesterol (HDL-C) (Rodríguez-Pérez et al., 2021). Indian traditional diets, when low in trans fats and refined carbohydrates, show similar cardiovascular benefits due to spices such as turmeric (curcumin) and garlic (allicin), which have anti-inflammatory and antithrombotic properties.

Type 2 Diabetes Mellitus (T2DM)

Evidence suggests that traditional diets with a **low glycemic index (GI)** and high fiber content improve insulin sensitivity and glycemic control (Kahleova et al., 2019). For example, the Japanese diet's emphasis on fish, soy products, and seaweed, alongside portion control, significantly reduces postprandial glucose spikes. Indian diets incorporating whole millets, pulses, and fenugreek seeds have demonstrated hypoglycaemic effects (Rathi et al., 2022). Moreover, fermented foods common in Japanese and Korean diets may improve gut microbiota composition, indirectly influencing glucose metabolism.

Obesity and Metabolic Syndrome

High fiber content and low energy density in traditional diets contribute to satiety and reduced overall caloric intake (Mozaffarian et al., 2020). The **Mediterranean diet's** balanced fat profile and the **Nordic diet's** emphasis on rye, oats, and root vegetables are particularly effective for weight management. Similarly, Indian vegetarian diets, when rich in legumes and whole grains, can lower body mass index (BMI) and waist circumference, though benefits depend on avoiding excessive fried foods and sweets.

Cancer Prevention

Bioactive compounds such as **polyphenols, flavonoids, isoflavones, and curcumin** in traditional diets exert

antioxidant and anti-inflammatory effects that can reduce cancer risk (WCRF/AICR, 2023). Soy isoflavones in the

Japanese diet have been linked to lower breast and prostate cancer incidence, while cruciferous vegetables in Nordic diets may protect against colorectal cancer. In Indian diets, spices such as turmeric, ginger, and cumin contain compounds that modulate carcinogen metabolism and suppress tumour growth.

Gut Health and Immunity

Fermented foods like miso, kimchi, yogurt, and traditional Indian buttermilk supply probiotics that enhance gut microbial diversity (Marco et al., 2021). A balanced gut microbiome contributes to immune modulation, reduced inflammation, and improved nutrient absorption. Dietary fibers from legumes, fruits, and whole grains act as prebiotics, fuelling beneficial bacteria such as *Bifidobacterium* and *Lactobacillus*.

Challenges in Integrating Traditional Diets into Modern Lifestyles

Despite substantial evidence of their benefits, integrating traditional diets into contemporary food environments faces several obstacles.

Urbanization and Dietary Transition

Rapid urbanization has led to increased consumption of processed and ultra-processed foods, often replacing traditional staples with high-calorie, low-nutrient alternatives (Popkin et al., 2022). Convenience foods are marketed aggressively, overshadowing traditional food culture.

Time Constraints and Cooking Skills

Traditional diets often require longer preparation times and cooking skills that younger generations may lack. The decline of intergenerational knowledge transfer in food preparation further limits adoption.

Availability and Cost of Ingredients

Global supply chains and urban food systems may not prioritize traditional grains, legumes, and spices, leading to reduced availability and higher costs compared to processed alternatives.

Cultural Perceptions and Modern Preferences

Western fast foods are often perceived as modern and aspirational, while traditional foods may be stigmatized as “old-fashioned.” Changing such perceptions requires sustained public health campaigns and culinary innovation.

Future Perspectives and Research Gaps

To maximize the health potential of traditional diets in modern contexts, research and policy should address the following:

1. **Longitudinal Studies:** More high-quality cohort studies are needed to confirm long-term effects of traditional diets on chronic disease prevention.
2. **Nutrigenomics:** Understanding how genetic and epigenetic factors influence the benefits of traditional diets.
3. **Sustainable Food Systems:** Investigating how traditional diets align with environmental sustainability goals.
4. **Digital Health Tools:** Using apps and AI-based meal planners to integrate traditional recipes into daily routines.
5. **Food Innovation:** Reformulating traditional foods for convenience while maintaining nutritional integrity (e.g., ready-to-cook millet kits).

Conclusion

Traditional diets represent a time-tested approach to promoting health and preventing chronic diseases. Rich in plant-based foods, healthy fats, and bioactive compounds, these diets support cardiovascular health, glycaemic control, healthy body weight, cancer prevention, and gut microbiome diversity. However, urbanization, globalization, and shifting food preferences challenge their preservation. Bridging the gap between tradition and modernity will require policy interventions, culinary innovation, and public education. Integrating the best elements of traditional diets into modern lifestyles offers a sustainable pathway for both human and planetary health.

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