SAFFRON: South Asian Food For Robust, Optimal Nutrition

A Culturally Tailored Digital Tool for South Asian Dietary Transitions

Meenakshi Subha Vipin[1], Vivek Mathesh, BSA[2], Navnit Mohan, BS[2], Srinivas Pulipaka, BS[2], Zunnoorain Unnissa[3], Anand Rohatgi, MD[4], and Srijna Nandivada, MD[4]

[1]Department of Nutritional Sciences, The University of Texas at Austin, [2]UT Southwestern Medical School , [3]The University of Texas at Dallas, [4]UT Southwestern Medical Center

The University of Texas at Austin College of Natural Sciences

UT Southwestern Medical Center

Introduction

- **A healthy diet is not a one-size-fits-all prescription, with traditional meals looking different for patients from various cultural backgrounds.**
- However, medical dietary recommendations are often centered around Eurocentric foods, increasing the difficulty to make dietary changes for underrepresented groups.
- The MASALA study[1] revealed that South Asian (SA) immigrants face challenges adapting to Western diets and are at increased cardiometabolic disease risk.

SAFFRON was developed to address this gap and improve dietary adherence by facilitating transitions through a culturally tailored and customizable web-based platform.

Objectives

↑ Patient Satisfaction

↑ Dietary Adherence

↑ Awareness and Accessibility

Methods

1. We completed a needs assessment by surveying SA community members at the Radha Krishna Temple South Asian Health Fair in 2025 to assess baseline nutritional knowledge/habits and interest in culturally sensitive dietary resources.
2. Based on survey data, we designed SAFFRON to include the following features:

SOUTH ASIAN NUTRITION BANK

Filterable database of commonly consumed South Asian foods, aggregated from the Indian Nutrient Databank (INDB)

BUILD A MEAL

Allows users to add servings of foods from the database to create nutrient graphs that highlight nutritional content and foods that meet or conflict with the user's chosen dietary goal and current dietary guidelines

SAFFRON

RECIPES & GROCERY LIST

Selection of heart-healthy South Asian recipes with metabolic snapshots, utilizing the INDB and Harvard Health Glycemic Index Tables

NEWS & FORUM

Features relevant and credible articles and provides opportunity for discussion between healthcare professionals the community

Figures and Results

Of the 70 SA community members surveyed (n = 70), 46 identified as Female and 24 as Male. Fifty-six percent of members (n = 39) said they were interested in the tool. Comparing those who had lived in the U.S. for <15 years versus ≥15 years, there were no differences in the comfort levels in making heart-healthy meals, making sugar-conscious meals, and identifying key nutrients in everyday foods (p=0.26, p=0.45, p=0.37, respectively).

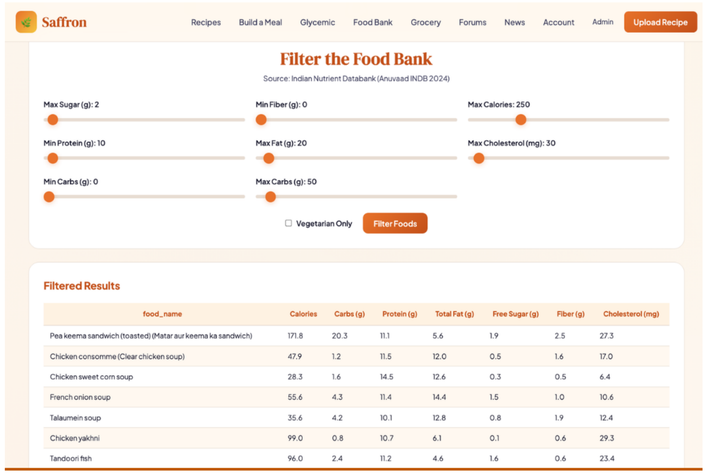

Figure 1: Users can filter from the South Asian Nutrition Bank by adding minimum and/or maximum limits on sugar, fiber, calories, protein, total fat, cholesterol, and carbohydrates. This will generate foods, including those of SA origin, that match the filter's requirements.

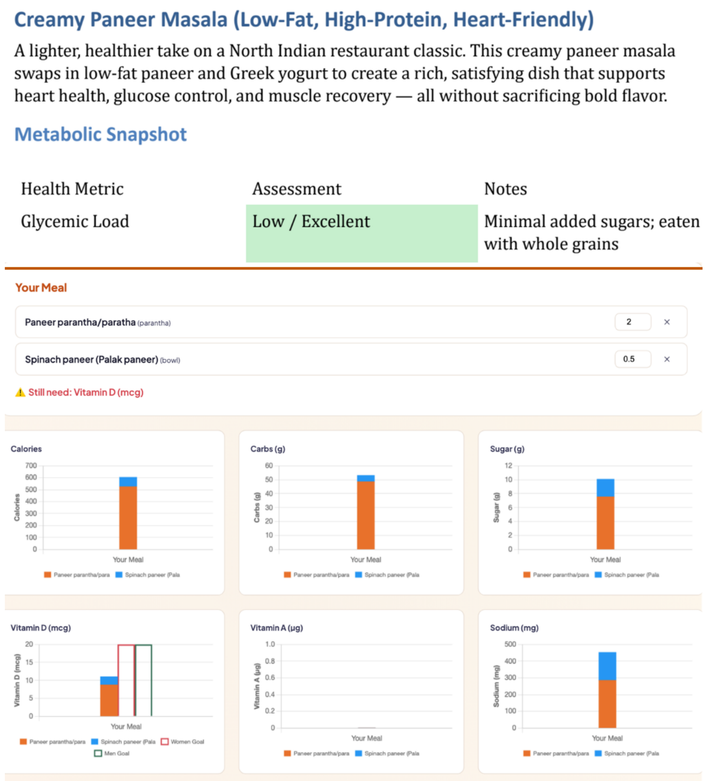

Figure 2: Example of a recipe's metabolic snapshot that precedes the ingredients, equipment, steps, tips for success, nutrition facts, and food group distribution.

Figure 3: The Build a Meal feature in use to view the nutritional content of a classic South Asian meal, while having a goal of increasing Vitamin D intake.

Conclusion & Next Steps

A pilot study will be launched with a SA temple in the summer of 2026. Fully informed attendees will be invited to use SAFFRON and complete surveys evaluating user satisfaction, dietary changes and cultural relevance. Findings will guide refinements to SAFFRON.

Ultimately, we expect SAFFRON will expand to all SA communities, include other underrepresented cultures, and be integrated into clinics with QR-coded handouts by Fall of 2026.

Scan to Explore Saffron

tinyurl.com/saffrondallas

Acknowledgments

We want to acknowledge the SA community members who participated in the needs-assessment survey as their engagement and input were essential to the development of SAFFRON. We also acknowledge the guidance of our faculty mentors and registered dietitians, whose expertise in nutrition, cultural competency, and health informed the design and implementation of this project. Finally, we recognize the contributions of the creators of the Indian Nutrient Databank (INDB) and the Harvard Health Glycemic Index, whose resources enabled accurate nutritional analysis.

References

[1]Kanaya, A. M., Kandula, N., Herrington, D., Budoff, M. J., Hulley, S., Vittinghoff, E., & Liu, K. (2013). Mediators of Atherosclerosis in South Asians Living in America (MASALA) study: objectives, methods, and cohort description. Clinical cardiology, 36(12), 713–720. https://doi.org/10.1002/clc.22219