

## ABSTRAK

**Latar belakang:** Survei pola konsumsi makanan berperan penting dalam surveilans gizi dan pemantauan risiko penyakit tidak menular. Metode Semi-Quantitative Food Frequency Questionnaire (SQ-FFQ) banyak digunakan, namun pengisian berbasis kertas memiliki keterbatasan efisiensi dan risiko kesalahan input. Inovasi digital, seperti aplikasi SQ-FFQ berbasis website bernama TARA (Tracking Asupan Riwayat mAkan), dinilai potensial untuk meningkatkan keakuratan dan kemudahan pengumpulan data. **Metode:** Penelitian ini menggunakan pendekatan cross-sectional yang dilakukan di Poltekkes Kemenkes Yogyakarta pada April–Juni 2025. Tahapan terdiri atas uji validitas bahan makanan SQ-FFQ berbasis kertas (n=20) dibandingkan metode 24-hour dietary recall, serta evaluasi *usability* aplikasi TARA oleh 104 responden menggunakan kuesioner *System Usability Scale* (SUS). **Hasil:** Validitas sedang ditemukan untuk estimasi energi dan karbohidrat, serta validitas rendah pada protein dan lemak. Uji beda menunjukkan tidak ada perbedaan signifikan untuk energi dan protein, namun terdapat perbedaan signifikan pada karbohidrat dan lemak. Rata-rata skor SUS aplikasi adalah 78 (kategori baik). Responden menilai aplikasi mudah digunakan dan efisien, meskipun mengusulkan penambahan bahan makanan spesifik. **Kesimpulan:** Aplikasi TARA menunjukkan potensi sebagai alat surveilans konsumsi makanan yang efisien dan ramah pengguna. Temuan ini mendukung pengembangan lanjutan dalam perluasan basis data makanan, peningkatan validitas, dan integrasi ke sistem surveilans nasional untuk mendukung kebijakan berbasis data.

**Kata Kunci:** *SQ-FFQ berbasis web, validitas, usability, surveilans gizi, System Usability Scale*

## ABSTRACT

**Background:** Dietary intake surveys play an important role in nutrition surveillance and monitoring the risk of non-communicable diseases. The Semi-Quantitative Food Frequency Questionnaire (SQ-FFQ) is widely used, but paper-based forms have limitations in terms of efficiency and risk of input errors. Digital innovations, such as a web-based SQ-FFQ application named TARA (Tracking Asupan Riwayat mAkan), offer potential to improve data collection accuracy and ease of use. **Methods:** This study employed a cross-sectional approach conducted at Poltekkes Kemenkes Yogyakarta from April to June 2025. The research consisted of two phases: validation of food items in the paper-based SQ-FFQ (n=20) compared to the 24-hour dietary recall method, and a usability evaluation of the TARA application involving 104 respondents using the System Usability Scale (SUS) questionnaire. **Results:** Moderate validity was found for estimating energy and carbohydrate intake, while protein and fat showed low validity. Difference testing indicated no significant difference for energy and protein, but significant differences were observed for carbohydrate and fat. The average SUS score for the application was 78 (considered good). Respondents found the application easy to use and efficient, although they suggested adding more specific food items to the database. **Conclusion:** The TARA application shows potential as an efficient and user-friendly tool for dietary intake surveillance. These findings support further development, including food database expansion, improved validity, and integration into national surveillance systems to support evidence-based policymaking.

**Keywords:** Web-based SQ-FFQ, validity, usability, nutrition surveillance, System Usability Scale