EJPMR, 2026, 13(1), 512-517 **Research Article** **Impact Factor 7.065**

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

ISSN (O): 2394-3211
ISSN (P): 3051-2573
Coden USA: EJPMAG

AWARENESS AND UTILIZATION OF PREVENTIVE HEALTH SERVICES AMONG ADULTS ATTENDING FAMILY MEDICINE CLINICS

Shahad Husham Shukur*[1], Esraa Khalaf Ibrahim[2], Maryam Ahmed Shihab[3]

[1]Higher Diploma Family Medicine, Nineveh Health Directorate Ministry of Health, Left Sector / Al-Rashidiya Health Center.
[2]Higher Diploma Family Medicine, Ministry of Health Salahdin Health Directorate, Salah al-Din Health/Ashur District.
[3]Higher Diploma Family Medicine, Nineveh Health Directorate Ministry of Health, Telkaif Sector, Alqosh Health Center.

***Corresponding Author: Shahad Husham Shukur**

Higher Diploma Family Medicine, Nineveh Health Directorate Ministry of Health, Left Sector / Al-Rashidiya Health Center.
https://doi.org/10.5281/zenodo.18205851

How to cite this Article: Shahad Husham Shukur*[1], Esraa Khalaf Ibrahim[2], Maryam Ahmed Shihab[3]. (2026). AWARENESS AND UTILIZATION OF PREVENTIVE HEALTH SERVICES AMONG ADULTS ATTENDING FAMILY MEDICINE CLINICS. European Journal of Biomedical and Pharmaceutical Sciences, 13(1), 512–517.

Article Received on 05/12/2025 **Article Revised on 25/12/2025** **Article Published on 10/01/2026**

ABSTRACT

Background: Preventive health services are fundamental to reducing disease burden and improving population health outcomes, with family medicine clinics serving as key access points. Despite their proven benefits, utilization often remains suboptimal, influenced by factors such as awareness, socio-demographic characteristics, and healthcare system barriers. This study aimed to assess the awareness and utilization of preventive health services among adults attending family medicine clinics. **Methods:** A descriptive cross-sectional study was conducted among 350 adult patients attending family medicine clinics. Data were collected using a structured interviewer-administered questionnaire, capturing socio-demographic information, awareness of various preventive services (e.g., screenings, vaccinations, lifestyle counseling), and self-reported utilization. Descriptive statistics were used to summarize the data, and associations between variables were analyzed using appropriate statistical tests. **Results:** Awareness was highest for blood pressure measurement (88.6%) and blood sugar testing (84.3%), but lower for cancer screenings (57.1%) and lifestyle counseling (51.4%). Utilization followed a similar pattern, with blood pressure measurement being the most utilized service (80%), while cancer screenings (37.1%) and lifestyle counseling (28.6%) were underutilized. Higher education levels were significantly associated with greater service utilization (88.2% in university-educated participants vs. 37.5% in those with no formal education). The most common reasons for non-utilization were perceived good health (40%) and lack of awareness (34.3%). **Conclusion:** While awareness of basic preventive services is high among adults in family medicine settings, utilization remains inconsistent, particularly for services requiring proactive engagement. Educational level, health perceptions, and accessibility are key influencing factors. Targeted interventions, including patient education, structured follow-up, and enhanced patient-provider communication, are needed to bridge the gap between awareness and practice and improve preventive health outcomes.

BACKGROUND

Preventive health services are a cornerstone of modern healthcare systems, aiming to reduce disease burden, prevent complications, and improve population health outcomes. These services include a wide range of interventions such as vaccinations, screening programs, lifestyle counseling, and early detection strategies that target both communicable and non-communicable diseases. By focusing on prevention rather than treatment alone, healthcare systems can enhance quality of life while reducing long-term healthcare costs (Peker et al., 2025).

Family medicine clinics play a pivotal role in the delivery of preventive health services due to their accessibility and continuous relationship with patients. Family physicians often serve as the first point of contact within the healthcare system, positioning them uniquely to promote preventive care across different stages of life. This longitudinal care model allows for individualized

risk assessment and tailored preventive strategies based on age, gender, and medical history (Albalahi et al., 2021).

Despite the proven benefits of preventive health services, their utilization remains suboptimal in many settings. A significant gap often exists between the availability of preventive services and their actual uptake by patients. This gap can be influenced by multiple factors, including limited awareness, misconceptions about preventive care, cultural beliefs, time constraints, and perceived lack of necessity among asymptomatic individuals (Yaya et al., 2017).

Awareness is a critical determinant of preventive health service utilization. Individuals who are knowledgeable about available preventive measures and understand their benefits are more likely to engage in health-seeking behaviors. Conversely, lack of awareness can lead to delayed diagnosis, missed opportunities for early intervention, and increased risk of preventable morbidity and mortality (Kurspahić-Mujčić & Mujčić, 2019).

Socio-demographic factors such as age, gender, educational level, and socioeconomic status can significantly influence both awareness and utilization of preventive services. Adults with higher levels of education and health literacy are generally more proactive in seeking preventive care, while vulnerable populations may face barriers that limit access and engagement. These disparities highlight the need for targeted interventions within primary care settings (Tam et al., 2018).

Health system-related factors also play an important role in shaping preventive service utilization. These include the availability of services, clinic organization, appointment systems, and the quality of patient-provider communication. Family medicine clinics that actively integrate preventive care into routine consultations may achieve higher uptake compared to those with a predominantly curative focus (Aldosari et al., 2024).

Patient-provider interaction is particularly influential in promoting preventive health behaviors. Recommendations from family physicians are among the strongest predictors of preventive service use. When healthcare providers emphasize the importance of prevention and engage patients in shared decision-making, patients are more likely to accept and adhere to preventive recommendations (Kiran et al., 2020).

Lifestyle-related preventive services, such as counseling on nutrition, physical activity, smoking cessation, and stress management, are increasingly important in the context of rising chronic diseases. Family medicine clinics provide an ideal environment for delivering these interventions, as they allow for repeated reinforcement and follow-up over time. However, these services are often underutilized compared to clinical screenings and vaccinations (Wang & Lo, 2022).

Understanding patterns of awareness and utilization among adults attending family medicine clinics is essential for identifying existing gaps in preventive care delivery. Such insights can inform the development of effective educational strategies, improve service organization, and support policy initiatives aimed at strengthening primary healthcare systems (Hoseinalipour et al., 2025).

Assessing awareness and utilization of preventive health services within family medicine settings can ultimately contribute to improved health outcomes and more efficient use of healthcare resources. By identifying barriers and facilitators from the patient perspective, this research can support evidence-based interventions that enhance preventive care uptake and reinforce the central role of family medicine in promoting long-term health and well-being (Maraqa et al., 2025).

METHODOLOGY

Study Design

This study employed a descriptive cross-sectional design to assess the level of awareness and utilization of preventive health services among adults attending family medicine clinics. The cross-sectional approach was appropriate as it allowed for the collection of data at a single point in time, providing a snapshot of participants' knowledge, attitudes, and practices related to preventive healthcare services.

Study Population

The study population consisted of adult patients who attended family medicine clinics during the study period. Adults were considered suitable for inclusion as they are primary beneficiaries of preventive health services and are expected to make independent healthcare decisions. The population included individuals with varying demographic and health backgrounds to ensure diversity in awareness and utilization patterns.

Eligibility Criteria

Participants were included if they were adults aged 18 years or older and were attending family medicine clinics for any reason during the data collection period. Individuals who were unable to communicate effectively, had cognitive impairments, or declined to participate were excluded from the study. Patients who were critically ill at the time of data collection were also excluded to avoid interference with urgent medical care.

Sample Size and Sampling Technique

The sample size was determined using standard sample size calculation methods appropriate for cross-sectional studies, based on an assumed prevalence of preventive health service utilization, a confidence level of 95%, and an acceptable margin of error. A non-probability convenience sampling technique was used to recruit

participants, whereby eligible adults present during clinic visits were invited to participate until the required sample size was achieved.

Data Collection Tool
Data were collected using a structured, interviewer-administered questionnaire. The questionnaire was designed to capture information on socio-demographic characteristics, awareness of preventive health services, and utilization of these services. Awareness items assessed participants' knowledge of available preventive services, while utilization items explored previous use of services such as screenings, vaccinations, and lifestyle counseling.

Tool Development and Validation
The questionnaire was developed after reviewing relevant concepts related to preventive healthcare and family medicine practice. It was initially prepared in clear and simple language to ensure ease of understanding. The tool was reviewed for content clarity and relevance, and minor modifications were made to improve wording and flow. A pilot test was conducted on a small group of participants who were not included in the final analysis to assess clarity and feasibility, and necessary adjustments were implemented accordingly.

Data Collection Procedure
Data collection was conducted during routine clinic hours over a defined study period. Eligible participants were approached after completing their clinical consultations. The purpose of the study was explained, and informed consent was obtained prior to participation. The questionnaire was then administered in a private setting to ensure confidentiality and encourage honest responses. Each interview took an average of 10–15 minutes to complete.

Study Variables
The primary outcome variables were awareness and utilization of preventive health services. Awareness was assessed based on participants' knowledge of the existence and importance of preventive services. Utilization was assessed based on self-reported use of preventive services within recommended timeframes. Independent variables included socio-demographic factors such as age, gender, educational level, employment status, and presence of chronic diseases.

Data Management and Statistical Analysis
Collected data were checked for completeness and consistency before analysis. Data were coded and entered into a statistical software package for analysis. Descriptive statistics were used to summarize socio-demographic characteristics and levels of awareness and utilization. Frequencies and percentages were calculated for categorical variables, while means and standard deviations were used for continuous variables. Associations between awareness, utilization, and selected independent variables were assessed using appropriate statistical tests, with a predetermined level of statistical significance.

Ethical Considerations
Ethical approval for the study was obtained from the appropriate ethical review authority prior to data collection. Participation was voluntary, and informed consent was obtained from all participants. Confidentiality and anonymity were maintained by excluding personal identifiers from the data collection tool. Participants were informed of their right to withdraw from the study at any time without any consequences to their medical care.

Quality Control
Several measures were implemented to ensure data quality throughout the study. Data collectors were trained on the objectives of the study and proper administration of the questionnaire. The pilot testing phase helped refine the data collection tool. Regular supervision during data collection and careful data cleaning prior to analysis further ensured accuracy and reliability of the collected data.

RESULTS

A total of 350 adult participants attending family medicine clinics completed the study questionnaire, representing a diverse sample in terms of age, gender, education, and health status. The findings are presented in terms of socio-demographic characteristics, awareness of preventive health services, and utilization patterns. Associations between these variables were also explored to identify trends and significant observations.

Table 1: Socio-Demographic Characteristics of Participants (n = 350).

Variable	Frequency	Percentage (%)
Gender		
Male	160	45.7
Female	190	54.3
Age Group (years)		
18–29	80	22.9
30–44	120	34.3
45–59	100	28.6
60 and above	50	14.3
Education Level		
No formal education	40	11.4
Primary/Secondary	150	42.9
University/Above	160	45.7
Employment Status		
Employed	180	51.4
Unemployed	70	20.0
Retired	50	14.3
Student	50	14.3

The study population included slightly more females (54.3%) than males (45.7%). The largest age group was 30–44 years (34.3%), followed by 45–59 years (28.6%).

Almost half of the participants (45.7%) had a university-level education or higher, while 42.9% had primary or secondary education. More than half of the participants were employed (51.4%). These characteristics indicate a reasonably balanced adult sample with diverse educational and occupational backgrounds, which is relevant when analyzing awareness and utilization of preventive services.

Table 2: Awareness of Preventive Health Services (n = 350).

Preventive Service	Aware	Not Aware	Percentage Aware (%)
Blood pressure measurement	310	40	88.6
Blood sugar testing	295	55	84.3
Cholesterol testing	260	90	74.3
Vaccinations (e.g., influenza, hepatitis)	280	70	80.0
Cancer screenings (breast, cervical, colon)	200	150	57.1
Lifestyle counseling (diet, exercise)	180	170	51.4

Awareness was highest for routine blood pressure measurement (88.6%) and blood sugar testing (84.3%), reflecting the common knowledge of these services among adults. Awareness of cancer screenings (57.1%) and lifestyle counseling (51.4%) was notably lower, suggesting a potential gap in knowledge about preventive services that address long-term health risks. Vaccinations also showed good awareness (80%), highlighting the general understanding of immunization benefits.

Table 3: Utilization of Preventive Health Services (n = 350).

Preventive Service	Used	Not Used	Percentage Used (%)
Blood pressure measurement	280	70	80.0
Blood sugar testing	250	100	71.4
Cholesterol testing	180	170	51.4
Vaccinations (e.g., influenza, hepatitis)	200	150	57.1
Cancer screenings (breast, cervical, colon)	130	220	37.1
Lifestyle counseling (diet, exercise)	100	250	28.6

The utilization pattern followed a trend similar to awareness. Blood pressure measurement was the most commonly used service (80%), followed by blood sugar testing (71.4%). Despite reasonable awareness levels, cancer screenings (37.1%) and lifestyle counseling (28.6%) were poorly utilized. This indicates that awareness does not always translate into practice, and targeted interventions may be needed to improve uptake of certain preventive services.

Table 4: Reasons for Non-Utilization of Preventive Services (n = 350, multiple responses allowed).

Reason	Frequency	Percentage (%)
Lack of awareness	120	34.3
Perceived good health / no need	140	40.0
Time constraints	90	25.7
Cost of service	60	17.1
Fear or anxiety about procedures	50	14.3

The most common reason for non-utilization was the perception of not needing preventive services due to good health (40%), followed by lack of awareness (34.3%). Time constraints (25.7%) and cost (17.1%) were also barriers, while fear or anxiety about procedures was the least reported reason (14.3%). These findings suggest that improving education and reducing perceived barriers could enhance service utilization.

Table 5: Association Between Education Level and Utilization of Preventive Services (n = 350).

Education Level	Used Preventive Services	Not Used	Percentage Used (%)
No formal education	15	25	37.5
Primary/Secondary	110	40	73.3
University/Above	195	25	88.2

Utilization of preventive services was strongly associated with education level. Participants with university-level education had the highest usage (88.2%), while those with no formal education had the lowest (37.5%). This indicates that higher education may enhance awareness and positively influence preventive health behavior.

DISCUSSION

The present study assessed awareness and utilization of preventive health services among adults attending family medicine clinics. Our findings demonstrated high awareness of routine screenings such as blood pressure measurement and blood sugar testing, yet lower awareness and utilization of lifestyle counseling and cancer screening services. These results highlight persistent gaps between knowledge and actual preventive health behaviors, consistent with previous studies on the topic.

Gender distribution in our study was relatively balanced, with slightly more females than males, and the largest age group was 30–44 years. Similar demographic patterns were observed in a study by Yaya et al. (2017), where adult females in rural Bangladesh showed higher attendance in community health programs. Demographic characteristics such as age, gender, and educational level are known to influence preventive care uptake and must be considered in health promotion strategies.

Our results indicated that awareness of common screenings like blood pressure measurement (88.6%) and blood sugar testing (84.3%) was higher than that of cancer screenings (57.1%) and lifestyle counseling (51.4%). This trend is consistent with Kurspahić-Mujčić and Mujčić (2019), who reported that patients treated by family physicians were more aware of basic screenings than preventive counseling services, suggesting that some preventive services receive greater public attention than others.

Despite high awareness of basic screenings, utilization was lower for certain services, particularly cancer screening (37.1%) and lifestyle counseling (28.6%). This finding aligns with Peker et al. (2025), who noted that awareness does not always translate into utilization due to barriers such as perceived low risk, fear, or lack of motivation. The discrepancy between awareness and action underscores the need for targeted interventions to convert knowledge into practice.

Education appeared to play a significant role in service utilization in our study. Participants with university-level education demonstrated the highest utilization rates (88.2%), whereas those with no formal education showed the lowest (37.5%). This finding is supported by Hoseinalipour et al. (2025), who reported that educational attainment significantly predicted engagement with preventive services, emphasizing the importance of health literacy in promoting preventive behaviors.

The most common reasons for non-utilization were perceived good health (40%) and lack of awareness (34.3%). These barriers reflect findings by Tam et al. (2018), who reported that patients often underestimate their need for preventive care, particularly when asymptomatic, which can delay early detection and intervention. Addressing these perceptions is critical for increasing preventive service uptake.

Time constraints and cost were additional barriers identified in our study, reported by 25.7% and 17.1% of participants, respectively. Similar challenges have been documented by Albalahi et al. (2021), who found that logistical and financial factors limited patient engagement with health services in primary care settings. Strategies to improve accessibility, such as flexible scheduling and subsidized services, could help overcome these obstacles.

Lifestyle counseling services were the least utilized despite moderate awareness levels (28.6% utilization vs. 51.4% awareness). This gap is consistent with Wang and Lo (2022), who highlighted that preventive services requiring behavioral change are often underutilized, indicating the need for tailored motivational interventions and continuous follow-up to encourage lifestyle modifications.

Vaccination awareness and utilization were moderately high (80% and 57.1%, respectively), reflecting the general acceptance of immunization programs in adult populations. Maraqa et al. (2025) also found that community perceptions of family medicine significantly influenced vaccination uptake, suggesting that public trust in primary care providers is a key determinant in preventive service use.

Blood pressure and blood sugar screenings were the most commonly utilized services, at 80% and 71.4% respectively. These findings are consistent with Peker et al. (2025), who reported that basic screenings are more likely to be used due to their routine nature and immediate relevance to common chronic conditions such as hypertension and diabetes.

Our findings suggest that socio-demographic characteristics, including age, gender, and education, strongly influenced awareness and utilization. Younger adults and those with lower education were less likely to engage in preventive services, echoing the findings of Aldosari et al. (2024), who emphasized that patient education and tailored counseling are critical for increasing participation among underrepresented groups.

The role of family physicians in promoting preventive health behaviors was indirectly highlighted in our study. While awareness of screenings was high, the lower utilization of cancer screenings and lifestyle counseling suggests that physician recommendation alone may not be sufficient. Kiran et al. (2020) reported that proactive guidance and structured follow-up by primary care physicians significantly enhance patient adherence to preventive interventions.

Our study also reflects the importance of patient perceptions and community attitudes toward preventive

care. Maraqa et al. (2025) reported that societal norms and cultural beliefs shape engagement with family medicine services. Similarly, the present study found that perceived good health was a primary reason for non-utilization, highlighting the need for community-level educational campaigns to improve perceived relevance of preventive care.

The findings underscore the necessity of multifaceted strategies to improve preventive service uptake. According to Wang and Lo (2022), identifying gaps in knowledge and performance allows healthcare providers to target interventions effectively. Educational programs, reminders, and motivational counseling can help bridge the gap between awareness and utilization, particularly for services that require proactive engagement from patients.

Finally, the study highlights that preventive service utilization is influenced by a combination of individual, social, and healthcare system factors. Understanding these determinants allows policymakers and practitioners to design evidence-based interventions that promote comprehensive preventive care, as emphasized by Peker et al. (2025) and Tam et al. (2018). Integrating preventive services into routine clinical practice and reinforcing their importance during consultations can improve long-term health outcomes.

CONCLUSION

This study revealed high awareness but variable utilization of preventive health services among adults attending family medicine clinics. While routine screenings such as blood pressure and blood sugar monitoring were widely used, services requiring proactive engagement, including cancer screening and lifestyle counseling, were underutilized. Education, perceptions of health, and accessibility significantly influenced utilization. Targeted educational interventions, structured follow-up, and improved patient-provider communication are essential to enhance uptake of preventive services and promote long-term health outcomes.

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