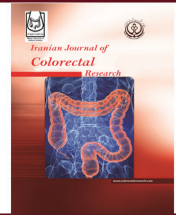


Iranian Journal of Colorectal Research



Factors Associated with the Progression of Gastric Cancer: An Effective Policy Brief

Safa Najafi^{1,2}, PhD; Soroush Monjezi^{3,4}, MD; Sirous Rafiei Asl^{5,6,7*}, PhD; Farkhondeh Jamshidi^{6,8}, PhD

¹Nursing Care Research Center in Chronic Diseases, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

²Department of Medical and Surgical Nursing, faculty of Nursing and Midwifery, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

³Student Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

⁴Clinical Research Development Unit, Golestan Hospital, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

⁵Cancer, Environmental and Petroleum Pollutants Research Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

⁶Alimentary Tract Research Center, Clinical Sciences Research Institute, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

⁷Department of Pathology, faculty of Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

⁸Department of Forensic Medicine, faculty of medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

*Corresponding author:

Sirous Rafiei Asl, PhD; Cancer, Environmental and Petroleum Pollutants Research Center, Jundishapur University Ahvaz, Golestan Highway, Postal code: 61357-15794, Ahvaz, Iran. **Tel:** +98 9395566827; **Email:** rafieiasl-s@ajums.ac.ir

Received: 2026-01-30

Revised: 2026-03-30

Accept: 2026-03-30

Abstract

Gastric cancer is one of the most common and deadly gastrointestinal cancers both in Iran and worldwide. This study aimed to identify modifiable risk factors, such as tobacco use and lifestyle, as well as non-modifiable factors, including age and gender, in patients with gastric cancer. The results indicated that tobacco use is directly associated with disease progression, whereas body mass index, *Helicobacter pylori* infection, and family history did not demonstrate a significant relationship. These findings highlight the need for health policymakers to focus on modifying high-risk behaviors and enhancing prevention programs.

Keywords: *Helicobacter pylori*; Stomach Neoplasms; Disease Progression; Risk Factors

Please cite this paper as:

Najafi S, Monjezi S, Rafiei Asl S, Jamshidi F. Factors Associated with the Progression of Gastric Cancer: An Effective Policy Brief. *Iran J Colorectal Res.* 2026;14(1):2-4. doi:

Introduction and Significance of the Issue

Gastric cancer is one of the leading causes of cancer-related mortality worldwide. Although mortality rates are expected to decline in most countries over the next decade, the absolute number of deaths from gastric cancer will continue to rise due to population growth (1). According to the World Health Organization, gastric cancer is among the most

common cancers in Iran, particularly among men, and it holds a significant position in terms of disease burden, treatment costs, and social consequences (2). Given the high prevalence of gastric cancer in Iran, its significant economic burden, and the poor prognosis for patients diagnosed at advanced stages, prioritizing primary prevention and identifying modifiable risk factors are essential strategies to reduce both mortality and the economic burden

Table 1: Strategies and implementation measures according to the results of the research project

Row	Policy Options	Advantages	Disadvantages	Effectiveness	Providing suggested and implementable solutions
1	Education and Awareness	Increasing people's knowledge and awareness by incorporating healthy eating habits and lifestyle modifications.	Ignoring the necessary training and solutions provided by some members of society.	Reducing Costs in Healthcare	Using public media such as radio, television, and other platforms.
2	Early Detection and Rapid Response to Disease	Disease Control	Creating a comprehensive monitoring system requires significant investment.	Reducing Mortality from Disease	Design and implement targeted screening programs for high-risk groups, especially men over 50 and tobacco users.
3	Promoting and Developing Basic and Applied Research	Providing new, effective, scientific, and implementable solutions for the control, prevention, and treatment of gastric cancer.	Associated with Research Projects	Establishing an Electronic Surveillance and Registration System for Gastric Cancer	Encouragement, financial support, and the establishment of facilities for researchers in the field of cancer research by government and private organizations, such as the Ministry of Health and Treatment and private research centers.

associated with this disease (3, 4). An effective policy brief presents research findings with clear, practical, and actionable recommendations for policymakers, thereby bridging the gap between scientific evidence and socially actionable decisions (5). In this policy brief, we provide a concise summary of the factors associated with the development of gastric cancer.

Methods

This study employed a descriptive-analytical census design to examine the medical records of all patients diagnosed with gastric cancer—confirmed by final pathological diagnosis—who were hospitalized over a ten-year period at teaching hospitals affiliated with Ahvaz Jundishapur University of Medical Sciences.

Inclusion criteria included a definitive pathological diagnosis of gastric cancer and the availability of complete clinical data and medical records.

Eligible cases were selected for analysis.

Data were extracted from the complete medical records of eligible patients, including demographic information, history of tobacco and alcohol use, and pathological findings. The data were then analyzed using SPSS software (version 27), with a p-value less than 0.05 considered statistically significant.

Findings of the Study

Our study results indicated that, histopathologically, adenocarcinoma was the most common type of cancer observed, particularly among men over the age of 50. Although more than 50% of the gastric cancer patients in this study had never used tobacco or alcohol, a significant association was found between tobacco use and disease stage based on the TNM system; smokers were more likely to present with advanced-stage disease ($P=0.020$). Additionally, over 40% of the patients tested positive

for **Helicobacter pylori** infection. Blood type B+ was the most prevalent among the patients, and more than 60% had a body mass index (BMI) greater than 24. While the role of **H. pylori** as a carcinogenic factor in gastric cancer is well-established, our study found no statistically significant association between blood type, BMI, **H. pylori** infection, or family history and the type or stage of the disease. However, the histological tumor type was significantly associated with the extent of metastasis and disease stage ($P=0.010$). Thus, these findings—indicating a lack of association (null results)—do not contradict the strong evidence supporting causality.

Policy Messages

1. Controlling behavioral risk factors, especially tobacco use, should be a top priority in national prevention programs targeting gastrointestinal cancers.

2. Design and implement targeted screening programs for high-risk groups, especially men over 50 and tobacco users.

3. Incorporating healthy nutrition, lifestyle modifications, and regular exercise into public health programs can help reduce the risk of developing this disease.

4. Developing an electronic surveillance and registration system for gastric cancer nationwide will help identify regional trends and risk factors more accurately.

5. Efforts should be made to increase access to early detection services and to enhance the training of family physicians in recognizing the early signs of gastric cancer.

6. Optimizing treatment pathways for gastric cancer and implementing cost-effective interventions to reduce healthcare expenses and alleviate the financial burden on both patients and the healthcare system (Table 1).

Implementation Recommendations

- Integrate stomach cancer prevention education into community health programs and health homes.
- Implement comprehensive smoking cessation programs targeting high-risk populations in collaboration with the Ministry of Health and media outlets.
- Support prospective research to identify the roles of genetic, environmental, and nutritional factors in the incidence of stomach cancer.
- Establish a system for the continuous monitoring and evaluation of stomach cancer prevalence across various regions of the country.
- Design national information campaigns that promote healthy lifestyles and emphasize the role of nutrition in preventing stomach cancer.

All data for this research project were obtained exclusively from the teaching and treatment hospitals affiliated with Ahvaz Jundishapur University of Medical Sciences, which limits the generalizability of the findings at the national level.

Ethical Considerations

This study was conducted in accordance with the

principles of research ethics and was approved by the Ethics Committee of Ahvaz Jundishapur University of Medical Sciences under project number CRC-0301 and ethics code IR.AJUMS.REC.1403.296. Informed consent was obtained from all patients.

Funding

Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

Authors' Contribution

Conceptualization: S.R.A. and S. N. Investigation: S.N. and S.M. Resources: S.R.A. Writing—original draft preparation: S.R. A; F.J. and S.M. Writing—review and editing: S.R.A and S.N. Data analysis: S.R.A. and S. N.

Conflict of Interest

There are no conflicts of interest among the authors of this article.

References

1. Lin J-L, Lin J-X, Lin G-T, et al. Global incidence and mortality trends of gastric cancer and predicted mortality of gastric cancer by 2035. *BMC Public Health*. 2024;24(1):1763.
2. Irandoust K, Alipour V, Arabloo J, et al. Economic burden of five common cancers in Iran: a systematic review of cost-of-illness with a focus on healthcare resource utilization. *BMC Health Services Research*. 2025;25(1):800.
3. Khouzani HR, Maleki MR, Zackery A, et al. Futures of gastric cancer: The fundamental level of prevention in health promotion using casual layered analysis. *Heliyon*. 2024;10(22).
4. Akbarpour E, Sadjadi A, Derakhshan M, et al. Gastric cancer in Iran: an overview of risk factors and preventive measures. *Archives of Iranian Medicine*. 2021;24(7):556-67.
5. Najafi, S., & Asl, S. R. (2024). A Practical Guide to Developing Effective Policy Briefs in Medical and Health Sciences. *Journal of Research in Health and Medical Sciences*, 3(1), 67-72.