
بسم الله الرحمن الرحیم

20th Congress of Iranian Society of Medical Oncology & Hematology

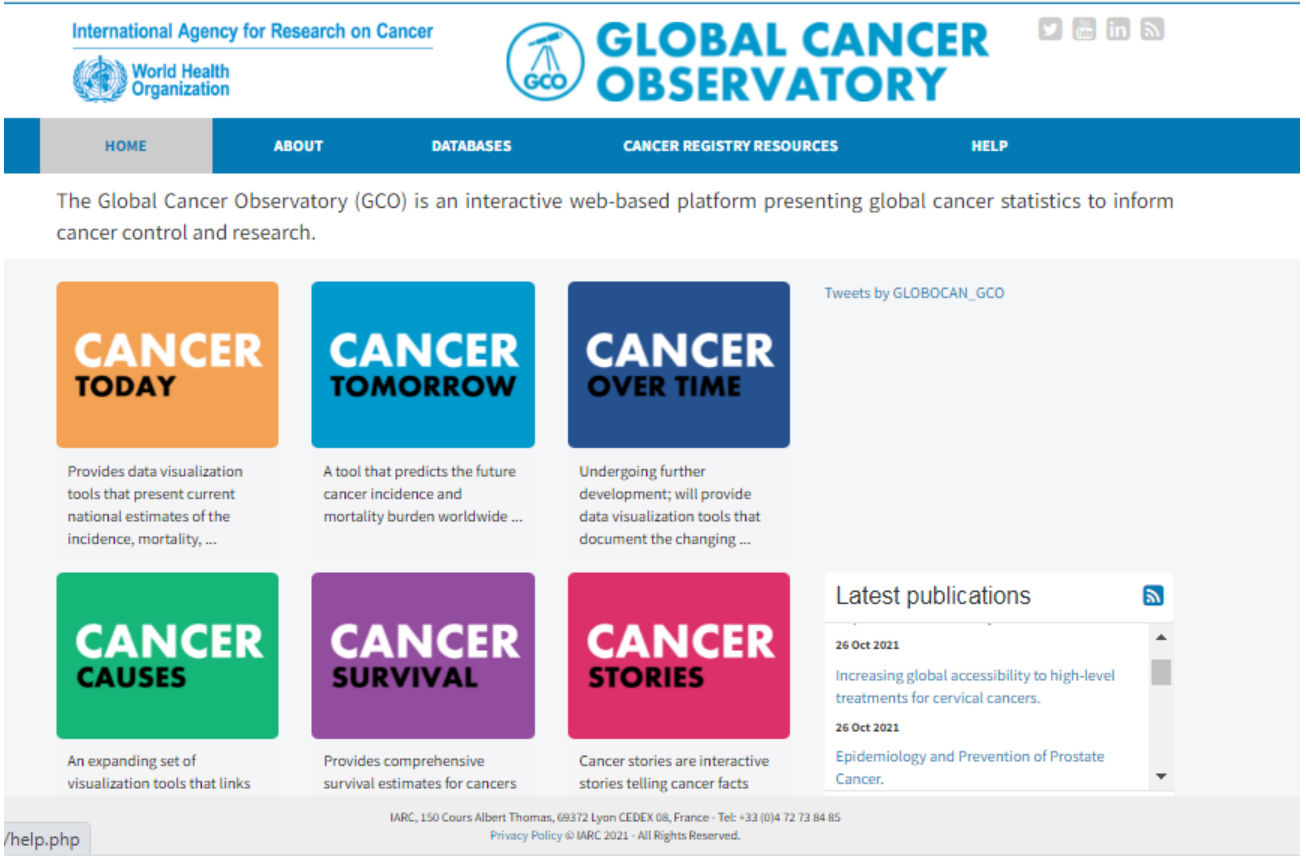
بیستمین کنگره سراسری انجمن پزشکان انکولوژی و هماتولوژی ایران (سال ۱۴۰۰)

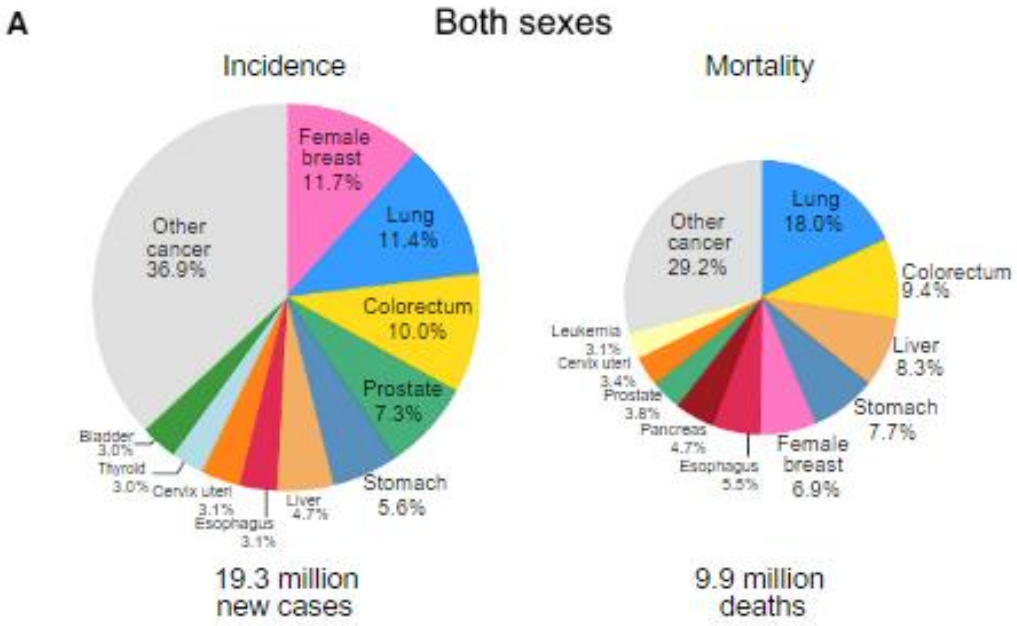
IRANIAN SOCIETY OF MEDICAL ONCOLOGY AND HEMATOLOGY
ISMOH

Epidemiology of Colorectal Cancer

Mohammad Hossein Somi
Tabriz University of Medical Sciences

https://gco.iarc.fr/




A
Both sexes
Incidence
Female breast 11.7%
Lung 11.4%
Colorectum 10.0%
Prostate 7.3%
Stomach 5.6%
Liver 4.7%
Esophagus 3.1%
Cervix uteri 3.1%
Thyroid 3.0%
Bladder 3.0%
Other cancer 36.9%
19.3 million new cases
Mortality
Lung 18.0%
Colorectum 9.4%
Liver 8.3%
Stomach 7.7%
Female breast 6.9%
Esophagus 5.5%
Pancreas 4.7%
Prostate 3.8%
Cervix uteri 3.4%
Leukemia 3.1%
Other cancer 29.2%
9.9 million deaths

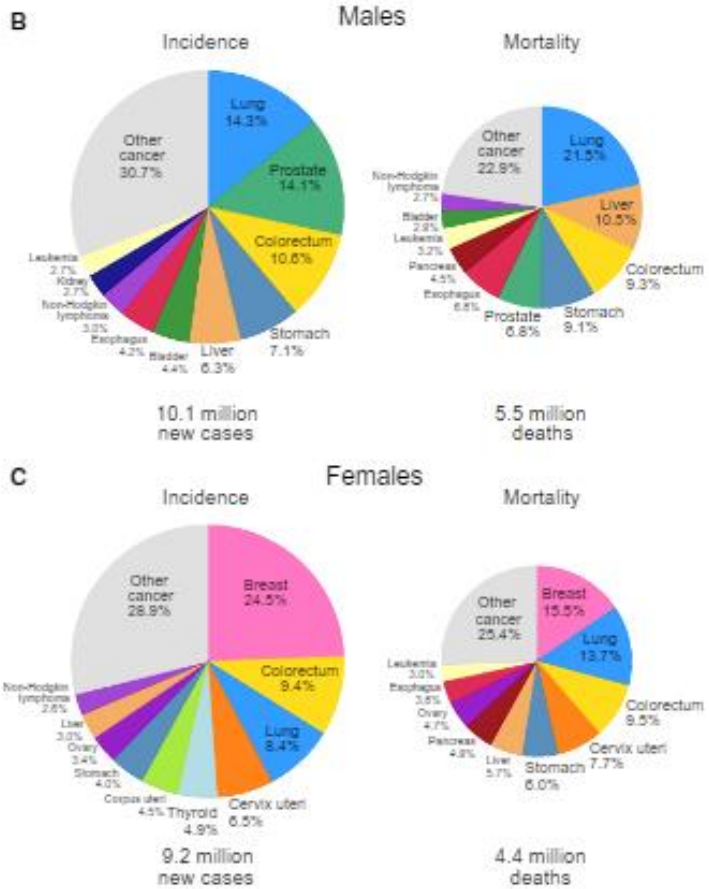
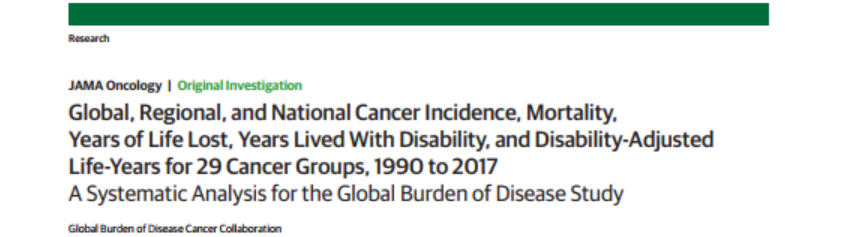


FIGURE 4. Distribution of Cases and Deaths for the Top 10 Most Common Cancers in 2020 for (A) Both Sexes, (B) Men, and (C) Women. For each sex, the area of the pie chart reflects the proportion of the total number of cases or deaths; nonmelanoma skin cancers (excluding basal cell carcinoma for incidence) are included in the "other" category. Source: GLOBOCAN 2020.

A Global Burden

Using the Global Burden of Disease (GBD) methodology, Over **1.9 million new colorectal cancer cases** and **935,000 deaths** were estimated to occur in 2020, accounting for about **1 in 10 cancer cases and deaths** .

Overall, colorectal cancer ranks third in terms of incidence but second in terms of mortality.


Research

JAMA Oncology | Original Investigation

Global, Regional, and National Cancer Incidence, Mortality, Years of Life Lost, Years Lived With Disability, and Disability-Adjusted Life-Years for 29 Cancer Groups, 1990 to 2017

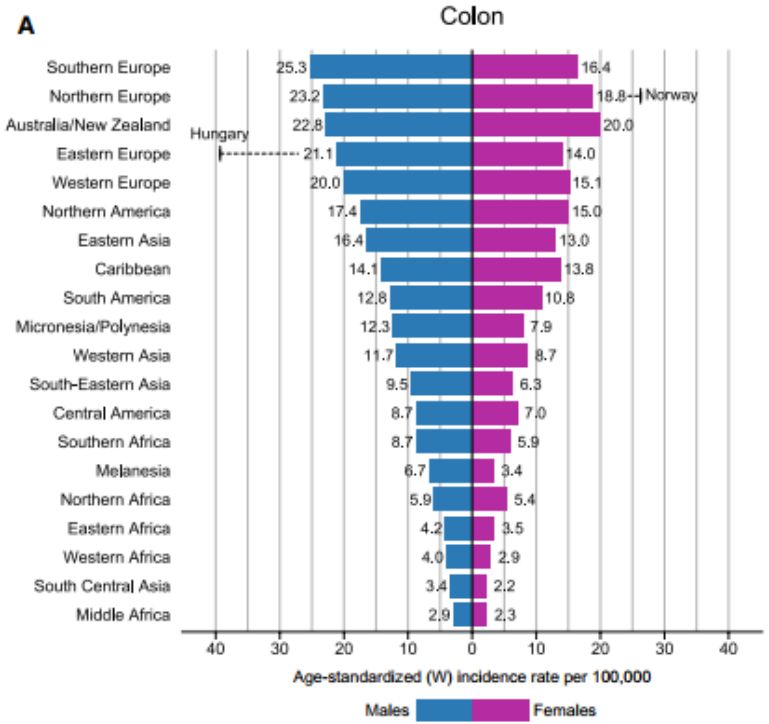
A Systematic Analysis for the Global Burden of Disease Study

Global Burden of Disease Cancer Collaboration

Between 2007 and 2017, incidence increased by 38% (95% UI, 34%-41%), from 1.3 million (95%UI, 1.27-1.30million) to 1.8 million (95%UI, 1.66-1.79 million) cases.

Most of this increase can be explained by an aging and growing population (20% and 13%, respectively); however, even with the same population size and age structure, colorectal cancer cases would have increased by 5% between 2007 and 2017 due to changing age-specific incidence rates.

There is an approximately 9-fold variation in colon cancer incidence rates by world regions, with the highest rates in European regions, Australia/ New Zealand, and Northern America, with Hungary and Norway ranking first in men and women, respectively.



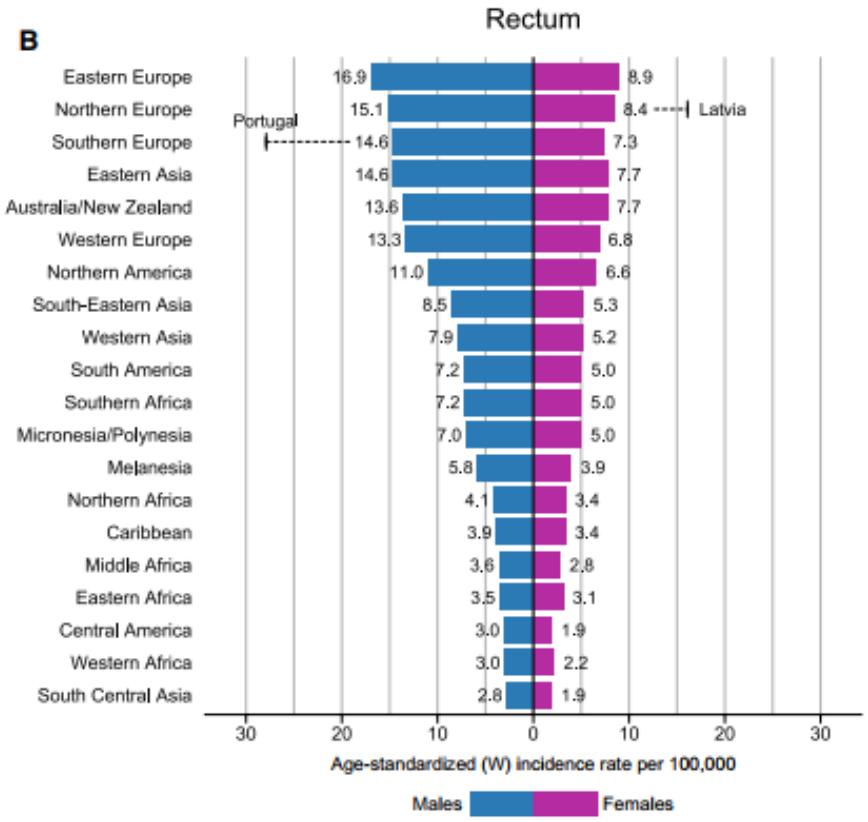
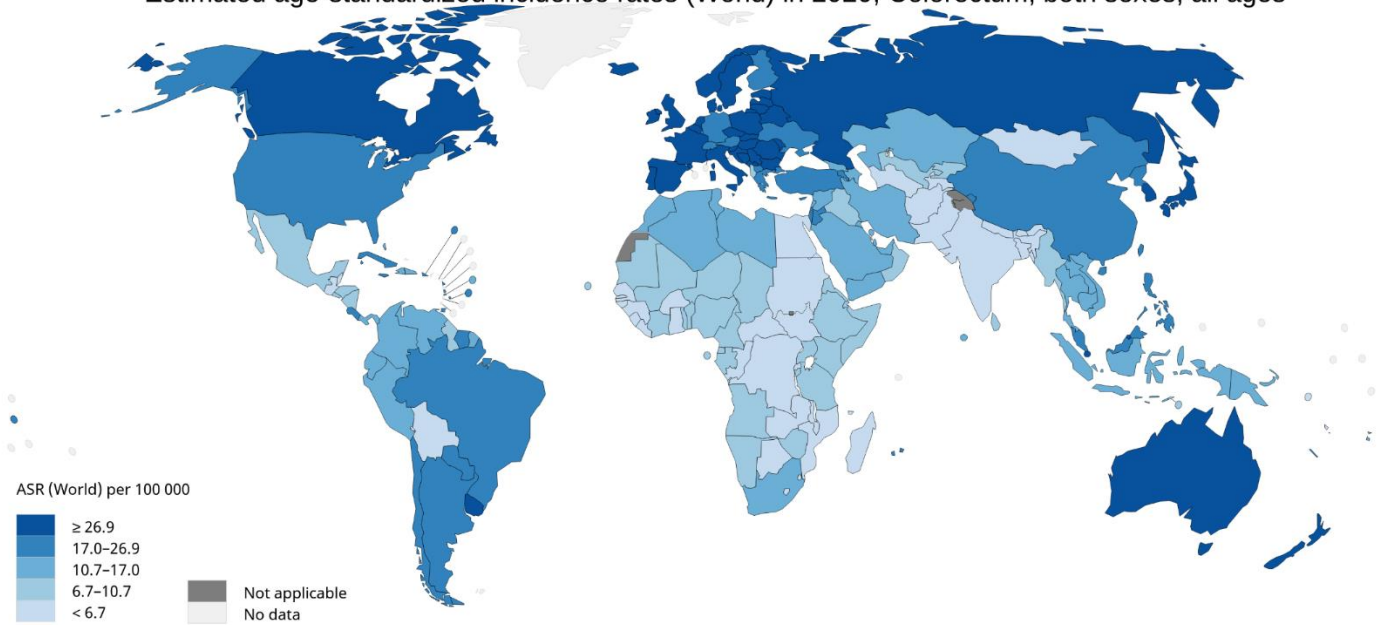


FIGURE 10. Region-Specific Incidence Age-Standardized Rates by Sex for Cancers of the (A) Colon and (B) Rectum (Including Anus) in 2020. Rates are shown in descending order of the world (W) age-standardized rate among men, and the highest national rates among men and women are superimposed. Source: GLOBOCAN 2020.

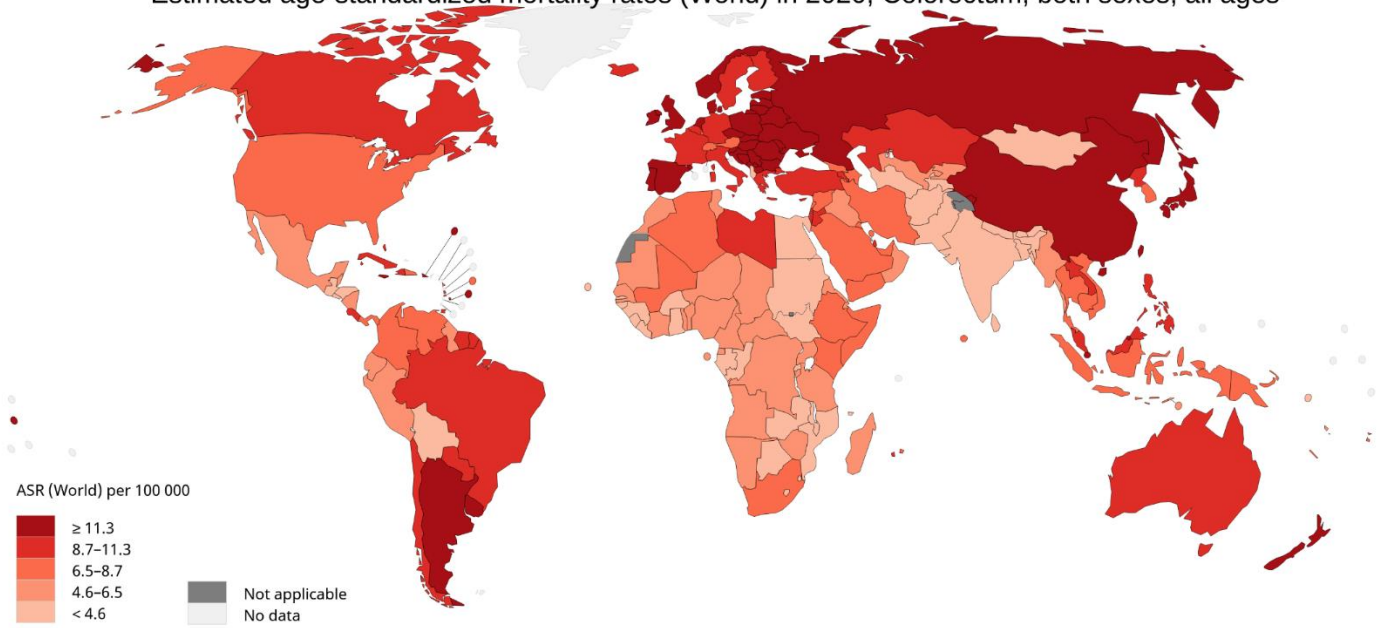
Estimated age-standardized incidence rates (World) in 2020, Colorectum, both sexes, all ages



Data source: GLOBOCAN 2020
Graph production: IARC (http://gco.iarc.fr/today)
World Health Organization

World Health Organization

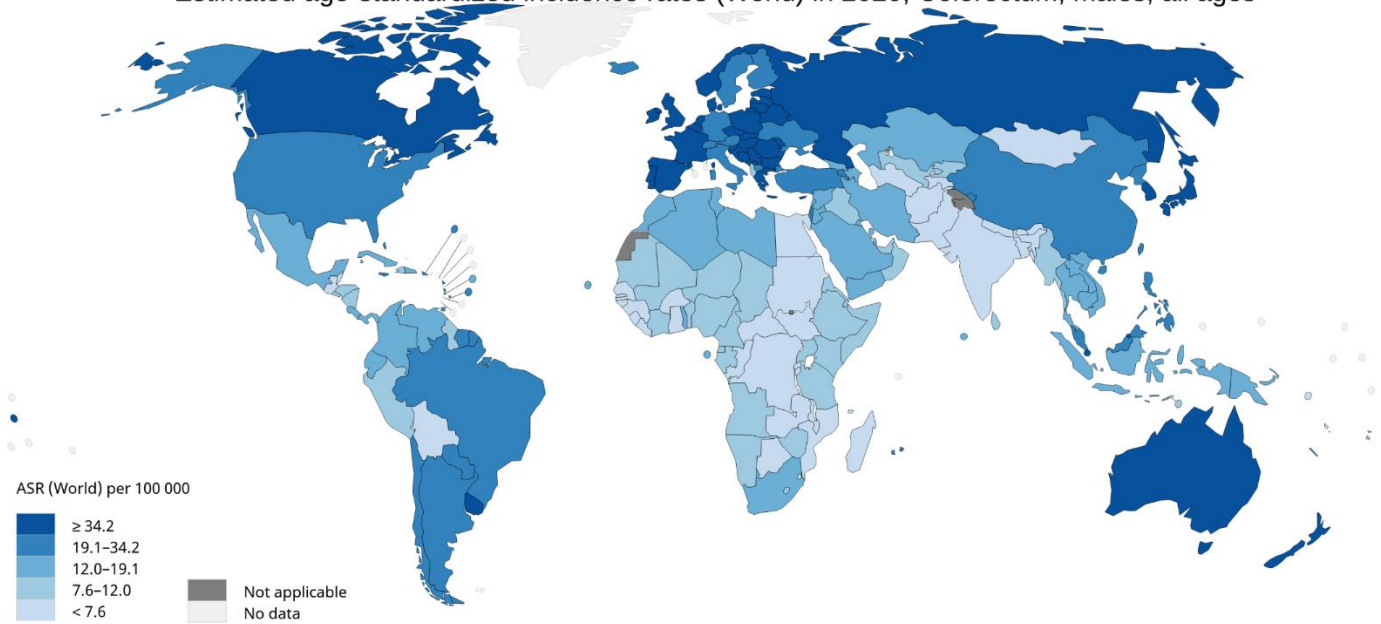
Estimated age-standardized mortality rates (World) in 2020, Colorectum, both sexes, all ages



Data source: GLOBOCAN 2020
Graph production: IARC (http://gco.iarc.fr/today)
World Health Organization

World Health Organization

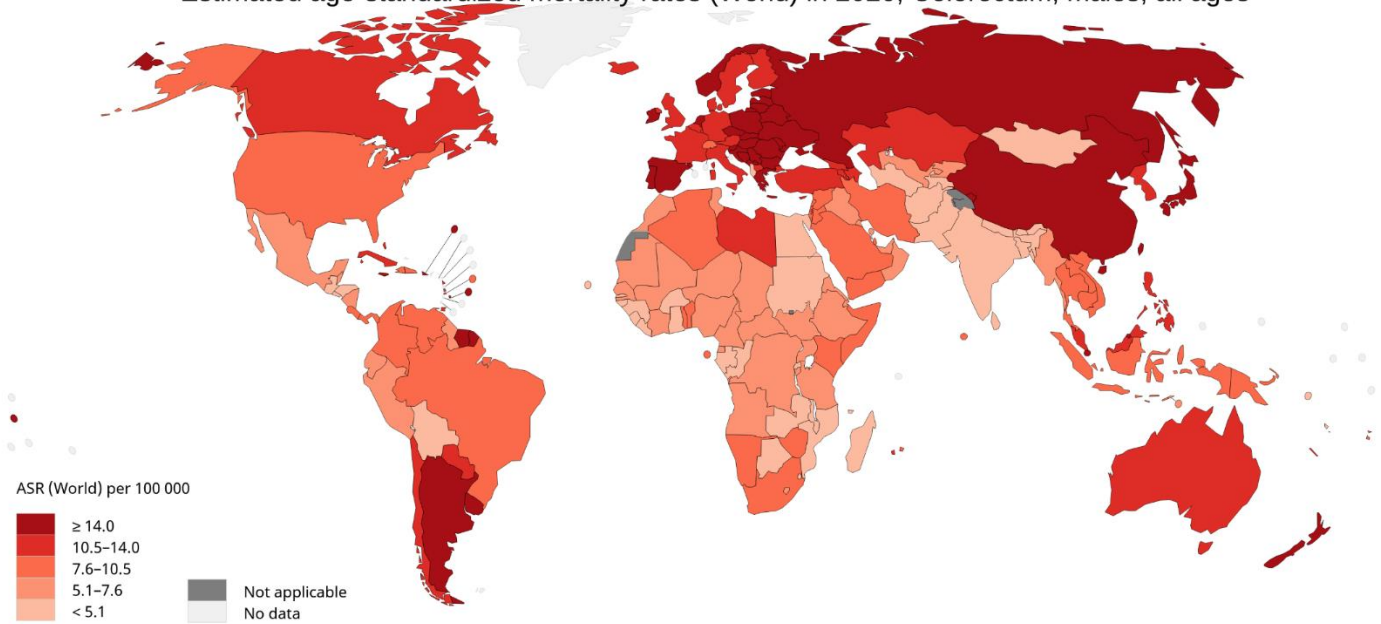
Estimated age-standardized incidence rates (World) in 2020, Colorectum, males, all ages



Data source: GLOBOCAN 2020
Graph production: IARC (http://gco.iarc.fr/today)
World Health Organization

World Health Organization

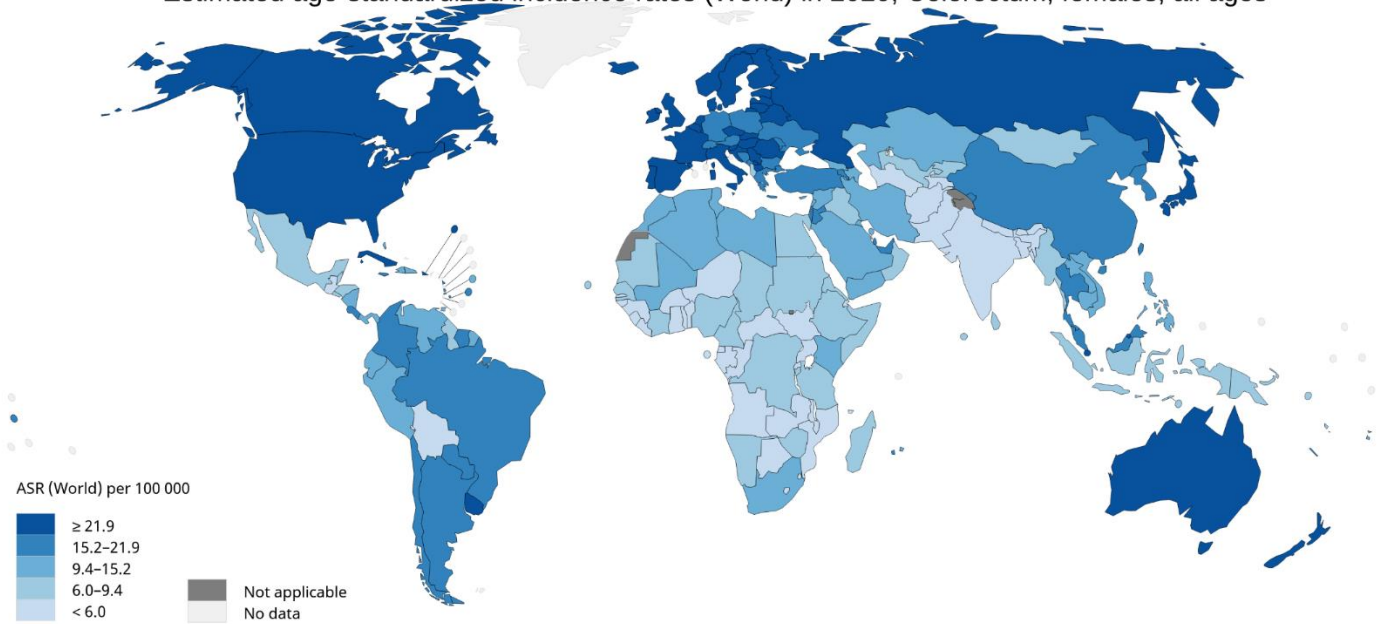
Estimated age-standardized mortality rates (World) in 2020, Colorectum, males, all ages



Data source: GLOBOCAN 2020
Graph production: IARC (http://gco.iarc.fr/today)
World Health Organization

World Health Organization

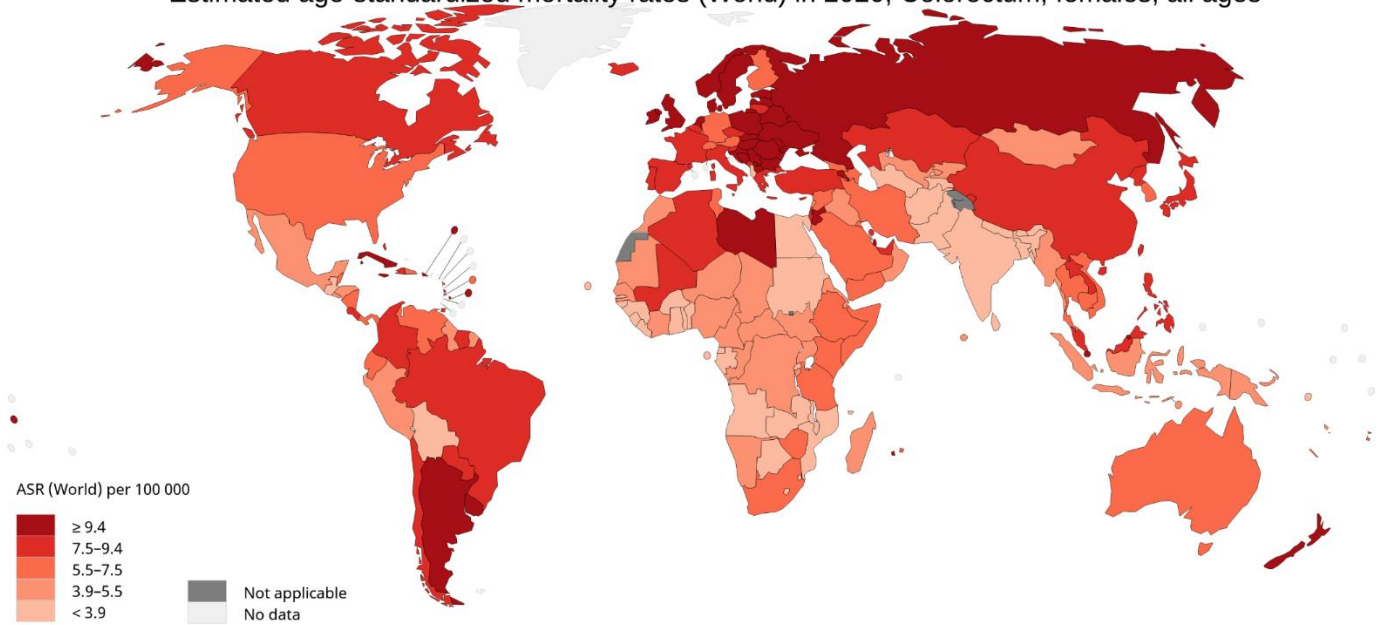
Estimated age-standardized incidence rates (World) in 2020, Colorectum, females, all ages



Data source: GLOBOCAN 2020
Graph production: IARC (http://gco.iarc.fr/today)
World Health Organization

World Health Organization

Estimated age-standardized mortality rates (World) in 2020, Colorectum, females, all ages



Data source: GLOBOCAN 2020
Graph production: IARC (http://gco.iarc.fr/today)
World Health Organization

World Health Organization

Colorectal cancer can be considered a marker of socioeconomic development, and, in countries undergoing major transition, incidence rates tend to rise uniformly with increasing HDI.

Incidence rates have been steadily rising in many countries in
Eastern Europe
South Eastern and South Central Asia
South America

The increase in formerly low-risk and lower HDI countries likely reflects changes in lifestyle factors and diet, ie,
Shifts toward an increased intake of animal-source foods and
a more sedentary lifestyle, leading to decreased physical activity and increased prevalence of excess body weight
which are independently associated with colorectal cancer risk.

Assessing incidence and mortality trends, Arnold et al identified 3 distinct global temporal patterns linked to development levels:

1) increases in both incidence and mortality in the most recent decade (including the Baltic countries, Russia, China, and Brazil);

2) increasing incidence but decreasing mortality (Canada, the United Kingdom, Denmark, and Singapore); and

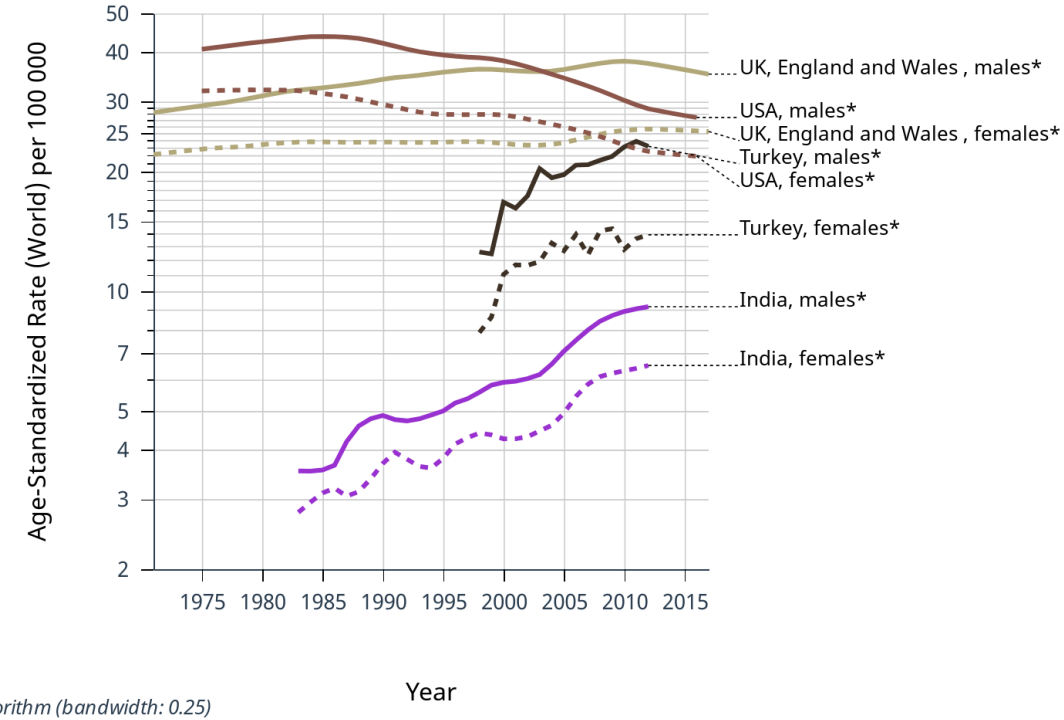
3) both decreasing incidence and decreasing mortality (the United States, Japan, and France).

Age-standardized rate (World) per 100 000, incidence, males and females

Colorectum

India - Turkey* - UK, England and Wales * - USA**

Males Females



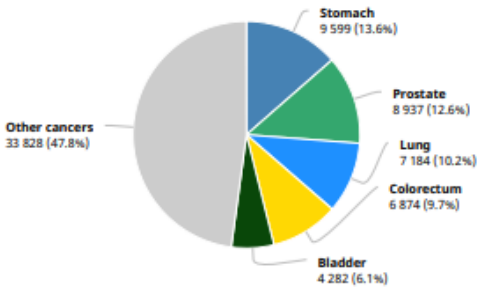
** Subnational data*

Rates are shown on a semi-log scale

Lines are smoothed by the LOESS regression algorithm (bandwidth: 0.25)

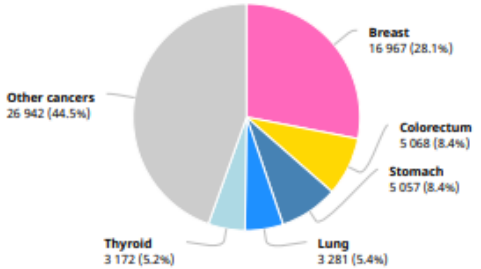
International Agency for Research on Cancer
World Health Organization

Number of new cases in 2020, males, all ages



Total: 70 704

Number of new cases in 2020, females, all ages



Total: 60 487

Summary statistic 2020

Numbers at a glance

Total population

83 992 953

Number of new cases

131 191

Number of deaths

79 136

Number of prevalent cases (5-year)

319 740

Data source and methods

Incidence

Country-specific data source: Local
Method: Weighted/simple average of the most recent local rates applied to 2020 population

Mortality

Country-specific data source: National (WHO)
Method: Most recent rates from one source applied to 2020 population

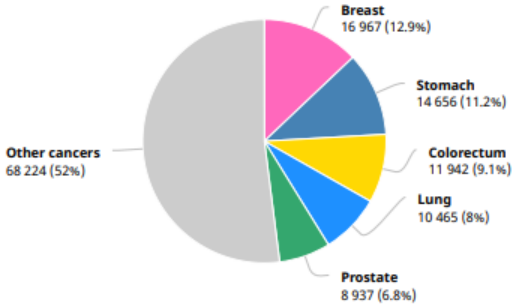
International Agency for Research on Cancer

World Health Organization

Iran, Islamic Republic of

Source: Globocan 2020

Number of new cases in 2020, both sexes, all ages



Total: 131 191

Geography

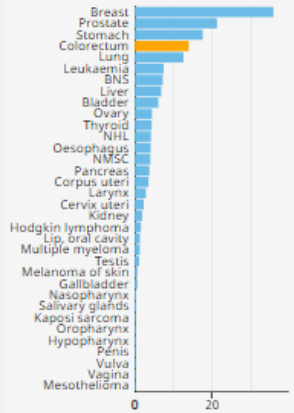
Iran (Islamic Republic of)

GRAPHIC TABLE

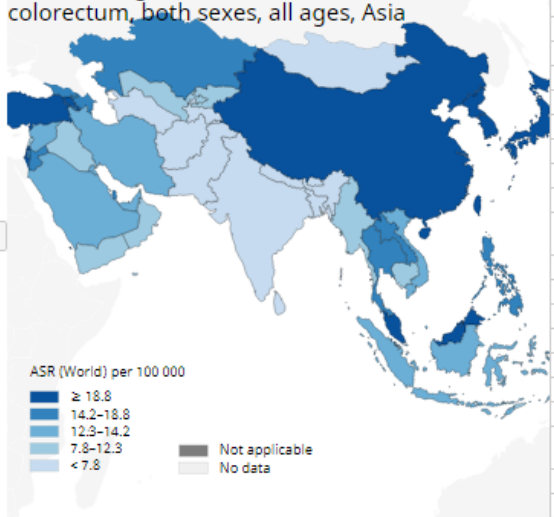
Incidence, both sexes, all ages

Number of incident cases	11 942
Crude rate	14.2
ASR (World) per 100 000	13.9
Cumulative risk (0-74)	3.9

ASR (World) per 100 000, both sexes, all ages



Estimated age-standardized incidence rates (World) in 2020, colorectum, both sexes, all ages, Asia



Population	ASR(W)
Japan	38.5
Brunei Darussalam	34.9
Singapore	33.0
Korea, Republic of	27.2
China	23.9
Israel	21.9
Turkey	20.6
Armenia	20.1
Malaysia	19.6
Korea, Democratic Republic of	18.8
Philippines	18.8
Gaza Strip and West Bank	18.6
Jordan	17.7
Thailand	16.9
Qatar	15.7
Kazakhstan	15.6
Georgia	15.6
Lao People's Democratic Republic	15.0
Azerbaijan	14.2
Viet Nam	14.1
Iran, Islamic Republic of	13.9
Saudi Arabia	13.9
Bahrain	13.9
United Arab Emirates	13.1
Maldives	13.0

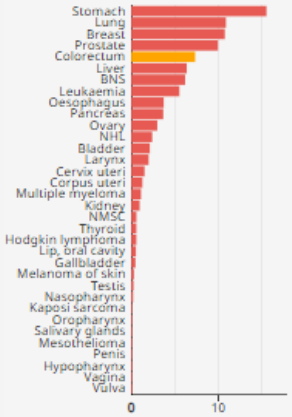
Population	ASR(W)
Indonesia	12.4
Cambodia	12.3
Lebanon	12.2
Yemen	10.7
Oman	9.9
Myanmar	9.7
Uzbekistan	8.9
Timor-Leste	8.9
Iraq	8.7
Kyrgyzstan	7.8
Sri Lanka	7.3
Mongolia	6.3
Turkmenistan	6.2
Afghanistan	5.7
Pakistan	5.3
India	4.8
Tajikistan	4.7
Nepal	4.3
Bhutan	3.8
Bangladesh	3.8

Iran (Islamic Republic of)

Mortality, both sexes, all ages

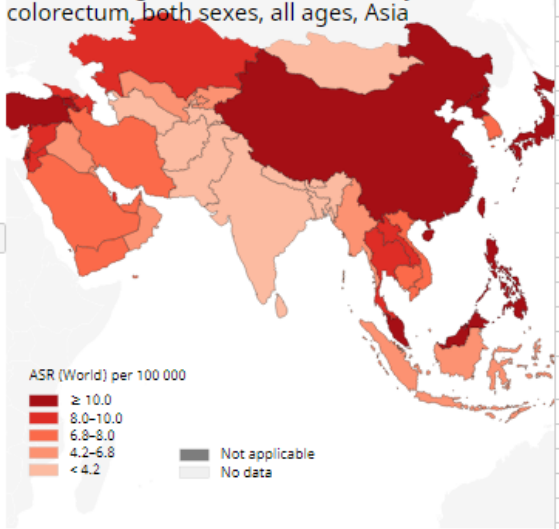
Number of deaths	6 220
Crude rate	7.4
ASR (World) per 100 000	7.3
Cumulative risk (0-74)	2.8

ASR (World) per 100 000, both sexes, all ages



GRAPHIC TABLE

Estimated age-standardized mortality rates (World) in 2020, colorectum, both sexes, all ages, Asia



Population	ASR(W)
Singapore	16.2
Brunei Darussalam	14.6
China	12.0
Japan	11.6
Armenia	11.3
Gaza Strip and West Bank	11.2
Korea, Democratic Republic of	10.9
Malaysia	10.2
Philippines	10.1
Turkey	10.1
Jordan	9.6
Kazakhstan	9.2
Qatar	9.0
Israel	9.0
Lao People's Democratic Republic	8.9
Azerbaijan	8.6
Thailand	8.4
Georgia	8.3
Syrian Arab Republic	8.2
Korea, Republic of	7.8
Yemen	7.7
Cambodia	7.4
Maldives	7.4
Iran, Islamic Republic of	7.3
Saudi Arabia	7.2

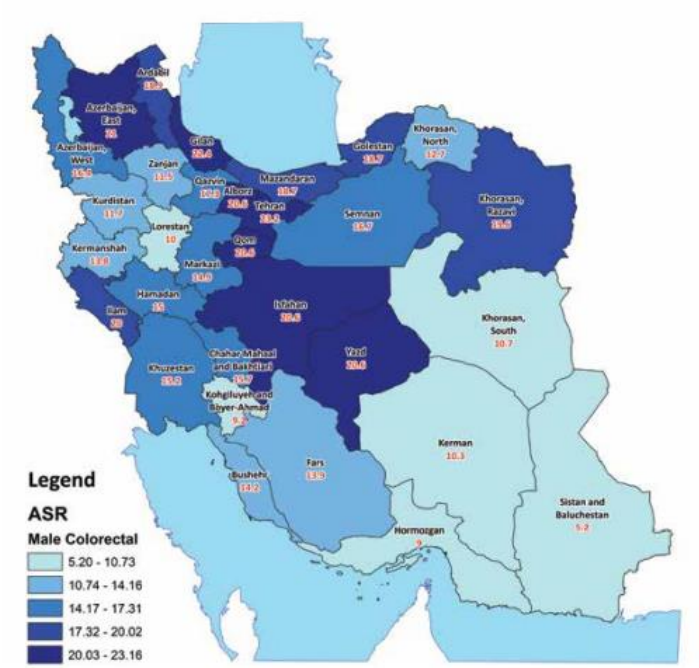
Population	ASR(W)
United Arab Emirates	6.9
Lebanon	6.7
Indonesia	6.7
Kuwait	6.6
Myanmar	5.8
Oman	5.7
Iraq	5.4
Kyrgyzstan	5.4
Uzbekistan	5.2
Timor-Leste	5.0
Mongolia	4.0
Afghanistan	3.8
Turkmenistan	3.8
Sri Lanka	3.7
Tajikistan	3.2
Pakistan	3.0
India	2.8
Nepal	2.5
Bhutan	2.5
Bangladesh	2.5

گزارش کشوری برنامه ملی ثبت سرطان

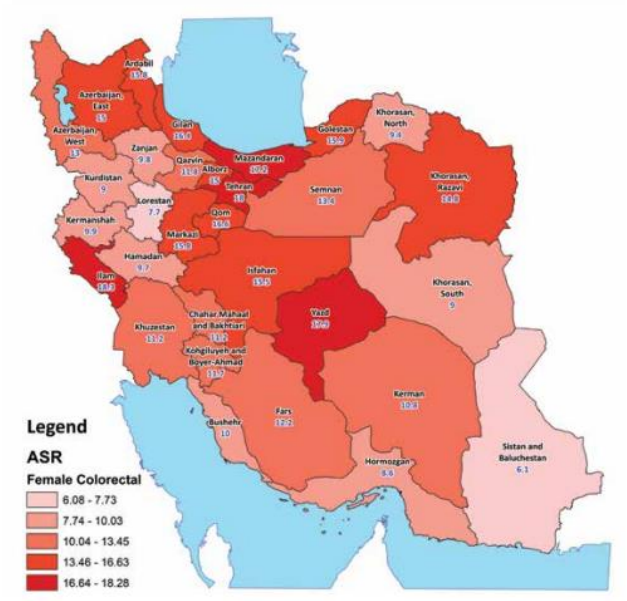
سال ۱۳۹۶

وزارت بهداشت، درمان و آموزش پزشکی
معاونت بهداشت، دفترمدیریت بیماری‌های غیرواگیر/اداره سرطان
دبیرخانه ملی مدیریت سرطان

نقشه شماره ۷ - میزان بروز استاندارد شده سنی (در هر ۱۰۰۰۰۰ نفر) سرطان‌های شایع
در استان‌های مختلف در سال ۱۳۹۶ - سرطان کولورکتال در مردان



نقشه شماره ۱۰- میزان بروز استاندارد شده سنی (در هر ۱۰۰۰۰۰ نفر) سرطان‌های شایع
در استان‌های مختلف در سال ۱۳۹۶ - سرطان کولورکتال در زنان



وزارت بهداشت، درمان و آموزش پزشکی
معاونت بهداشت، مدیریت بیماری‌های غیرواگیر و سرطان
دبیرخانه ملی مدیریت سرطان

جدول ۱- تعداد، میزان بروز خام و میزان بروز استاندارد شده سنی (ASR) (در ۱۰۰۰۰۰ نفر)
۱۲ سرطان شایع در کل جمعیت کشور - سال ۱۳۹۶

Organ	Number	Crude	ASR
Breast	17467	43.02	40.72
Prostate	7593	18.51	20.40
Colorectal	12492	15.45	15.97
Skin (non-melanoma)	12010	14.85	15.44
Stomach	10978	13.57	13.84
Trachea, Bronchus and Lung	6926	8.56	8.87
Bladder	6862	8.48	8.85
Thyroid	6266	7.75	6.81
Leukaemia	5964	7.37	7.71
Other and Unspecified (O&U)	5888	7.28	7.34
Uterus	2639	6.62	6.55
Brain, Nervous System	5034	6.22	6.25

جدول ۴- تعداد، میزان بروز خام و میزان بروز استاندارد شده سنی (ASR) (در ۱۰۰۰۰۰ نفر)

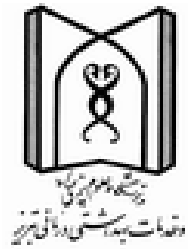
۱۴ سرطان شایع در جمعیت مردان کشور - سال ۱۳۹۶

Organ	Number	Crude	ASR
Prostate	7593	18.51	20.40
Stomach	7380	17.99	18.78
Skin (non-melanoma)	7324	17.86	18.93
Colorectal	6929	16.89	17.87
Bladder	5649	13.77	14.78
Trachea, Bronchus and Lung	4811	11.73	12.52
Leukaemia	3557	8.67	9.18
Other and Unspecified (O&U)	3182	7.76	7.98
Brain, Nervous System	2831	6.90	6.98
Non-Hodgkin Lymphoma	2202	5.37	5.50
Oesophagus	2050	5.00	5.21
Liver	1655	4.04	4.22

جدول ۳- تعداد، میزان بروز خام و میزان بروز استاندارد شده سنی (ASR) (در ۱۰۰۰۰۰ نفر)

۱۲ سرطان شایع در جمعیت زنان کشور - سال ۱۳۹۶

Organ	Number	Crude	ASR
Breast	17150	43.02	40.72
Colorectal	5563	13.96	14.12
Thyroid	5032	12.62	10.93
Skin (non-melanoma)	4686	11.76	12.01
Stomach	3598	9.03	8.99
Other and Unspecified (O&U)	2706	6.79	6.72
Uterus	2639	6.62	6.55
Leukaemia	2407	6.04	6.25
Ovary	2232	5.60	5.54
Brain, Nervous System	2203	5.53	5.51
Trachea, Bronchus and Lung	2115	5.31	5.30
Oesophagus	1650	4.14	4.22

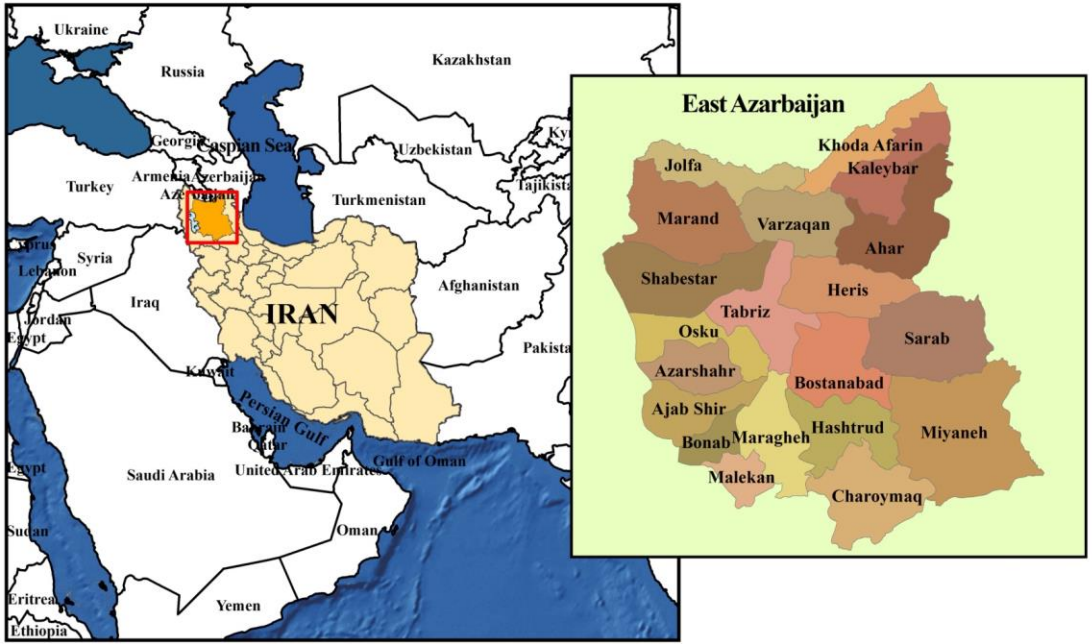


EAP BCR
East Azerbaijan Population Based Cancer Registry
Liver and Gastrointestinal Diseases Research Center
Tabriz University of Medical Sciences

East Azerbaijan Population Based Cancer Registry (EA-PBCR)

East Azerbaijan province is one of the 31 provinces of Iran and the biggest and most populated province of North West of Iran, one of the largest Azeri ethnic groups in Iran .

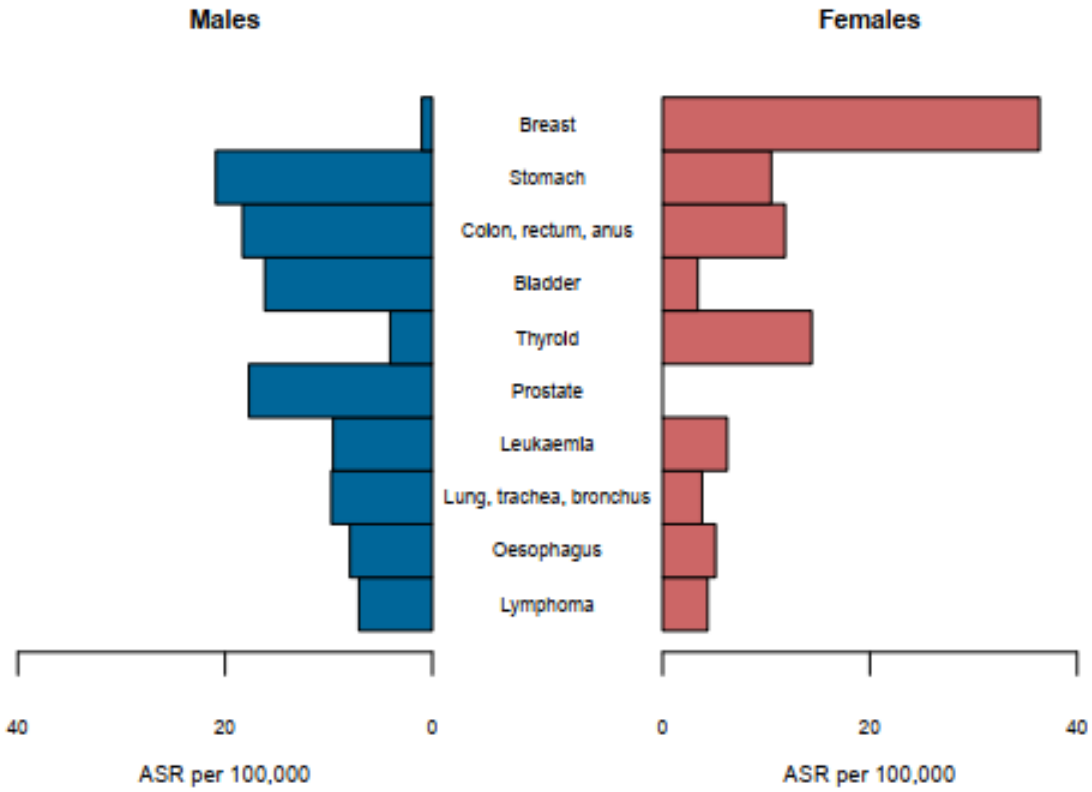
It covers an area of 47,830km^2 and had a total population of 3,909,652 according to the 2016 national census in Iran. The East Azerbaijan Population-based Cancer Registry is located in the oldest and biggest city of the state **Tabriz.**



20 Counties
62 Cities
44 Districts

Tabriz Cancer Registry (1396)

Top Cancers (ASR)



Tabriz Cancer Registry (1396)

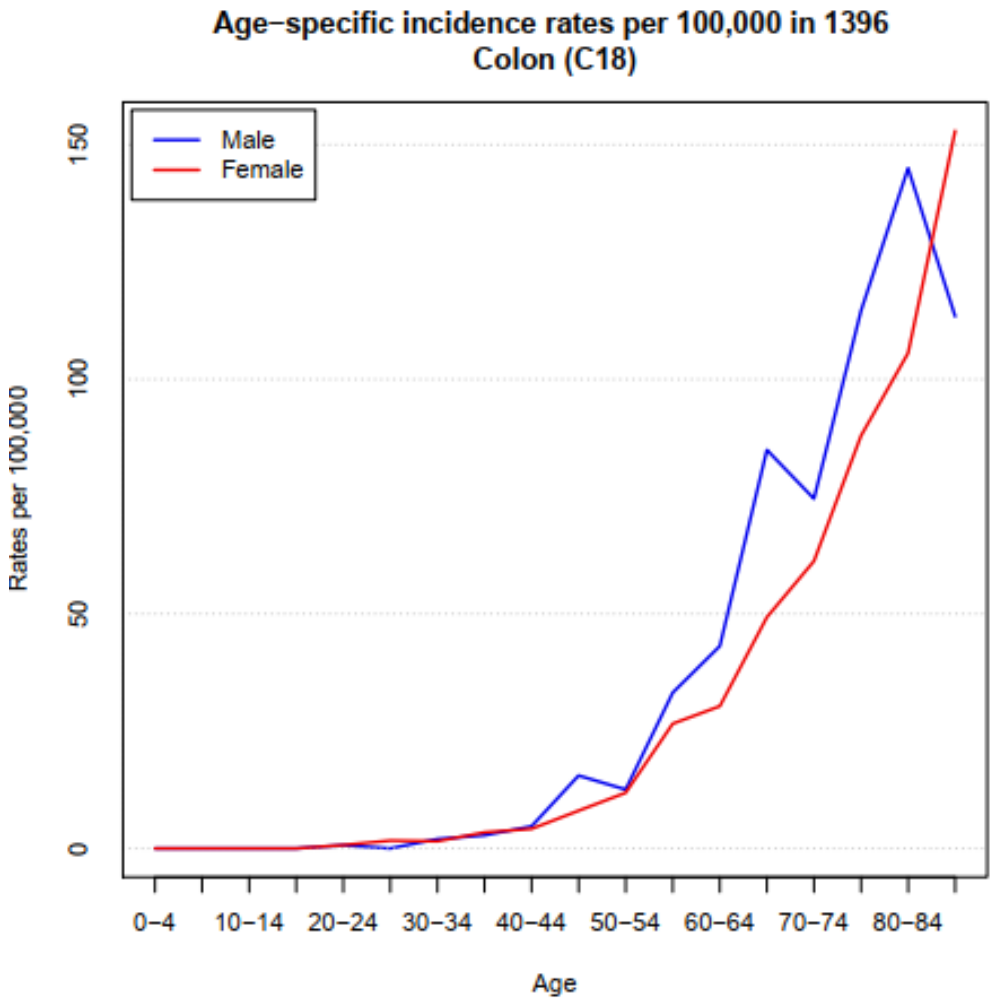
Data Quality Indicators

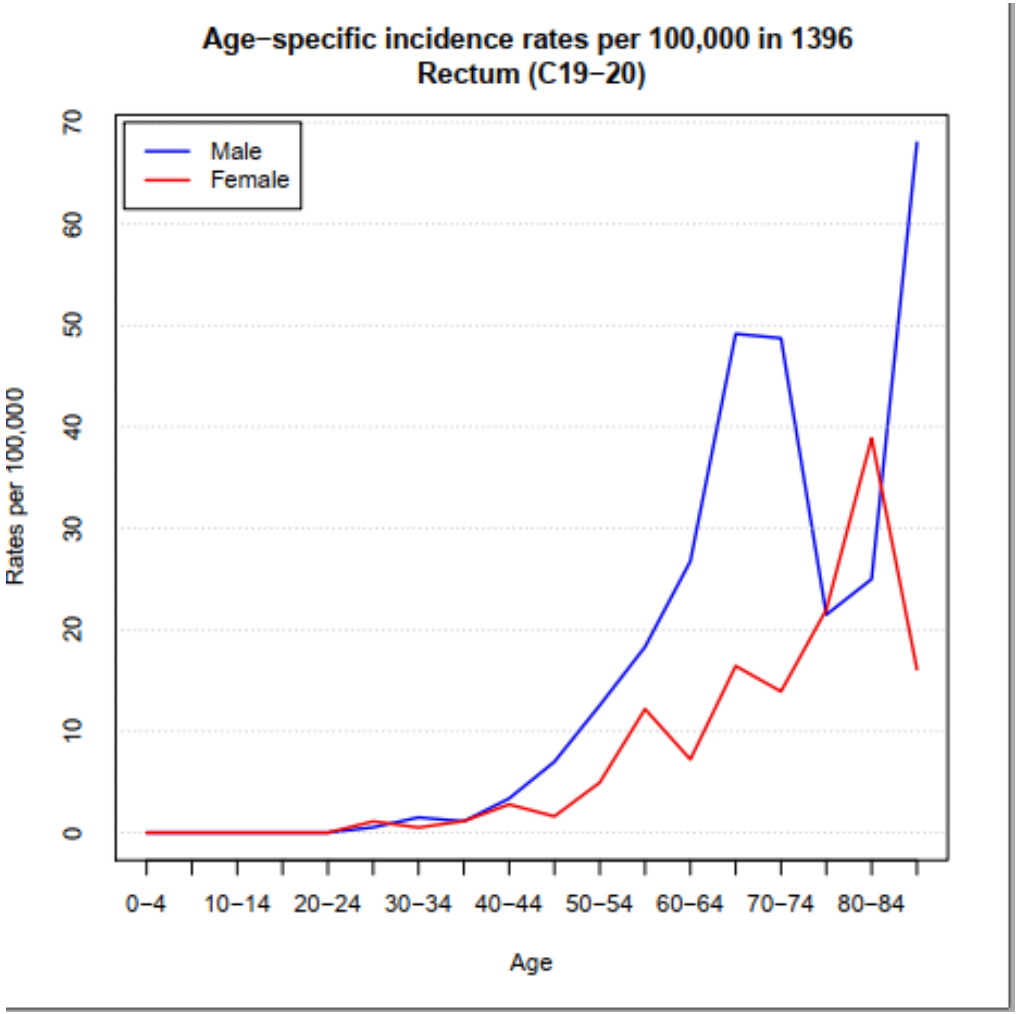
MALE

SITE	Cases	% Total	ASR(se)	MV(%)	CLIN(%)	DCO(%)	ICD10
Mouth & pharynx	108	2.84	5.21 (0.52)	78.70	16.67	4.63	C00–14
Oesophagus	173	4.54	7.95 (0.63)	76.30	10.98	12.72	C15
Stomach	458	12.02	20.89 (1.02)	60.48	9.39	30.13	C16
Colon, rectum, anus	378	9.92	18.30 (0.97)	71.43	9.26	19.31	C18–21
Liver	15	0.39	0.76 (0.20)	26.67	73.33	0.00	C22
Pancreas	76	2.00	3.55 (0.42)	14.47	18.42	67.11	C25
Larynx	68	1.79	3.52 (0.44)	77.94	4.41	17.65	C32
Lung, trachea, bronchus	196	5.15	9.74 (0.72)	79.59	19.90	0.51	C33–34
Pleura & other thoracic	16	0.42	0.73 (0.19)	68.75	31.25	0.00	C37–38
Melanoma of skin	25	0.66	1.20 (0.25)	100.00	0.00	0.00	C43
Prostate	385	10.11	17.70 (0.94)	72.99	4.42	22.60	C61
Testis	31	0.81	1.23 (0.23)	83.87	6.45	9.68	C62
Kidney & urinary NOS	109	2.86	5.35 (0.53)	68.81	10.09	21.10	C64–66,68
Bladder	341	8.95	16.17 (0.91)	82.70	9.38	7.92	C67
Brain & nervous sytem	82	2.15	4.09 (0.46)	69.51	24.39	6.10	C70–72
Thyroid	87	2.28	4.07 (0.45)	75.86	19.54	4.60	C73
Ill–defined	44	1.16	2.01 (0.31)	45.45	34.09	20.45	C76–80
Lymphoma	150	3.94	7.08 (0.60)	80.67	15.33	4.00	C81–85,90,88,96
Leukaemia	201	5.28	9.58 (0.71)	66.67	10.45	22.89	C91–95
All sites but C44	3374	88.58	159.87 (2.86)	70.07	12.63	17.31	ALLbC44

FEMALE

SITE	Cases	% Total	ASR(se)	MV(%)	CLIN(%)	DCO(%)	ICD10
Mouth & pharynx	62	1.89	2.93 (0.38)	77.42	16.13	6.45	C00–14
Oesophagus	113	3.45	5.11 (0.50)	81.42	7.96	10.62	C15
Stomach	231	7.06	10.48 (0.71)	46.32	10.39	43.29	C16
Colon, rectum, anus	256	7.82	11.82 (0.76)	71.09	8.59	20.31	C18–21
Liver	6	0.18	0.30 (0.13)	16.67	83.33	0.00	C22
Pancreas	33	1.01	1.56 (0.28)	27.27	15.15	57.58	C25
Larynx	11	0.34	0.46 (0.15)	27.27	0.00	72.73	C32
Lung, trachea, bronchus	77	2.35	3.81 (0.44)	72.73	27.27	0.00	C33–34
Pleura & other thoracic	15	0.46	0.70 (0.18)	93.33	6.67	0.00	C37–38
Melanoma of skin	33	1.01	1.61 (0.29)	87.88	12.12	0.00	C43
Breast	790	24.13	36.36 (1.31)	81.14	10.25	8.61	C50
Cervix	56	1.71	2.54 (0.35)	94.64	5.36	0.00	C53
Corpus & Uterus NOS	114	3.48	5.46 (0.52)	79.82	8.77	11.40	C54–55
Ovary & adnexa	123	3.76	5.95 (0.54)	66.67	15.45	17.89	C56
Kidney & urinary NOS	60	1.83	2.98 (0.39)	66.67	8.33	25.00	C64–66,68
Bladder	73	2.23	3.40 (0.41)	83.56	9.59	6.85	C67
Brain & nervous sytem	64	1.95	3.31 (0.43)	76.56	21.88	1.56	C70–72
Thyroid	326	9.96	14.38 (0.81)	89.57	10.12	0.31	C73
Ill–defined	35	1.07	1.75 (0.31)	37.14	31.43	31.43	C76–80
Lymphoma	90	2.75	4.35 (0.47)	74.44	21.11	4.44	C81–85,90,88,96
Leukaemia	124	3.79	6.23 (0.58)	62.10	9.68	28.23	C91–95
All sites but C44	3019	92.21	141.15 (2.63)	73.17	13.18	13.65	ALLbC44


Age−specific incidence rates per 100,000 in 1396
Colon (C18)
Male
Female
Rates per 100,000
0
50
100
150
0−4
10−14
20−24
30−34
40−44
50−54
60−64
70−74
80−84
Age


Age−specific incidence rates per 100,000 in 1396
Rectum (C19−20)
Male
Female
Rates per 100,000
0
10
20
30
40
50
60
70
0−4
10−14
20−24
30−34
40−44
50−54
60−64
70−74
80−84
Age

Survival and Mortality?

REVIEW

Editorial Process: Submission:01/10/2018 Acceptance:01/05/2019

Survival Rate of Colorectal Cancer in Iran: A Systematic Review and Meta-Analysis

Khadije Maajani[1], Mahmoud Khodadost[2,3]*, Arash Fattahi[4], Ehsan Shahrestanaki[1], Aliyar Pirouzi[2], Fatemeh Khalili[5], Hamed Fattahi[6]

Abstract

Background: Different studies have been conducted to estimate the survival rate of colorectal cancer in Iran but there is no overall estimate of the survival rate. The aim of this study was to calculate the pooled 1, 3, and 5-year survival rate of the patients with colorectal cancer in Iran. **Methods:** To retrieve relevant studies, we conducted a systematic search in Iranian databases, including Iran Medex, Magiran, SID, and international databases such as Medlin/PubMed, Scopus, and Google scholar using "Colorectal Neoplasms" and "Survival Rate" as keywords up to December 1st, 2017. We used random effect model to estimate pooled 1, 3, and 5-year survival rates of the patients with colorectal cancer in Iran. To assess the heterogeneity, we used Chi-squared test at the 5 % significance level ($p < 0.05$) and I^2 Index. We used meta-regression and subgroup analysis to find a potential source of heterogeneity. **Results:** After a systematic search, 196 articles were found, of the 38 studies met the eligibility criteria and are included in our meta-analysis. The pooled 1, 3, and 5-year survival rates in patient with colorectal cancer were 0.84 (95% CI: 0.81-0.87), 0.64 (95%CI: 0.59-0.70), and 0.54 (95%CI: 0.49-0.58) respectively. The 5-year survival rate in the subgroup of women was 0.5 (0.44-0.56) and in male subgroup was 0.44 (0.40-0.48). In a subgroup of the tumor site, the 5-year survival rate in colon cancer was 0.6 (0.49-0.75) and rectum cancer was 0.54 (0.36-0.69). In multivariable models, there was a significant association between years of study and 5-year survival rate as a source of heterogeneity ($\beta = 18.9$, $P=0.01$). **Conclusion:** According to the results of this study, women had a better survival rate than men, and according to the tumor site, the 5-year survival rate in colon cancer was better than the rectum cancer.

Keywords: Colorectal cancer- survival rate- meta-analysis- Iran

Asian Pac J Cancer Prev, **20 (1)**, 13-21

Neoplasma 2019; 66(6): 988–994

doi:10.4149/neo_2019_190131N92

Survival rate of colon and rectum cancer in Iran: A systematic review and meta-analysis

M. H. PANAHI[1], H. PANAHI[2], A. MAHDAVI HEZAVEH[3], M. A. MANSOURNI[1], R. BIDHENDI YARANDI[1,4,*]

[1]*Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran;* [2]*Department of Psychology, Lorestan University, Lorestan, Iran;* [3]*Center for Non-Communicable Diseases, Deputy of Health, Ministry of Health and Medical Education, Tehran, Iran;* [4]*Reproductive Endocrinology Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

**Correspondence: razi_bidhendi@yahoo.com*

Received January 31, 2019 / Accepted April 10, 2019

Colorectal cancer is one of the deadliest cancers worldwide. Effective screening, surveillance and prevention can decrease its incidence, mortality and burden. This meta-analysis aims to provide a pooled estimation of 5-year survival rate for colorectal cancer based on topography codes and treatment in Iranian population. A systematic search for literature was done in international and national databases up to July 2018. Twenty-seven studies from 4929 articles met the eligible criteria. The overall pooled 5-year survival rates of colorectal cancer, colon, rectal and sigmoid were 56% (95% CI: 49, 63), 53% (95% CI: 41, 65), 52% (95% CI: 41, 62) and 38% (95% CI: 22, 55), respectively. In addition, 5-year survival rate of colorectal cancer after surgery was 64% (95%CI: 50, 78). Subgroup analysis by type of data source showed significantly higher rate of survival in oncology center (29%) than hospital-based (p=0.005). As a conclusion, low survival rate of colorectal cancer in Iran necessitates effective screening and surveillance strategies to find precancerous polyps and detect early-stage cases with lower stage risk of cancer.

Key words: survival rate, colorectal neoplasms, meta-analysis

Epidemiological aspects of colorectal cancer in East Azerbaijan, Northwest Iran: five year survival analysis

Ramin Barnous[1], Mohammad Hossein Somi[1], Zohreh Sanaat[2], Pooneh Jabbaripoor[1], Neda Dolatkhah[3], and Roya Dolatkhah[2]*

ABSTRACT

BACKGROUND

Colorectal cancer (CRC) is the third most common cancer and the second leading cause of death from cancer in the world. Currently, CRC is the fourth most common cancer in men and the second common cancer in women of all ages in Iran. The aim of this study was to determine the epidemiologic profile of CRC along with CRC specific survival analysis.

METHODS

This was an analytical cross-sectional study using the East Azerbaijan Population Based Cancer Registry database (EA-PBCR) as a source for data related to patients with a diagnosis of CRC. Colorectal cancer specific 1- to 5-year survival analysis and mortality rates were calculated. Log-rank test and Cox regression analysis was performed to test the equality of survival function and mortality hazard.

RESULTS

A total of 2,366 newly diagnosed CRCs were registered during 3 years, with a male: female ratio of 1.31. Overall survival rate was 49.8%. One- to 5-year survival rates were 96.21%, 56.94%, 48.62%, 47.88% and 46.76% respectively. At multivariate level, after adjusting for all variables, regression analysis showed that the hazard of mortality in stage IV cancers was 46.44 times higher than that in stage I cancers (HR=46.44, 95% CI: 14.86-145.14, p=0.000). However, differences in patients' age group and sex and the subsite of cancer did not create any statistically significant variation between groups in regards to mortality hazards (p>0.05).

CONCLUSION

This study demonstrated that the stage and grade of CRC were important prognostic factors and that early screening and diagnosis of CRC were essential.

Keywords: Colorectal cancer, epidemiology, survival, prognosis, East Azerbaijan

[1]Liver and Gastrointestinal Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran
[2]Hematology and Oncology Research Center, Tabriz University of Medical Sciences, Tabriz, Iran
[3]Physical Medicine and Rehabilitation Research Center, Aging Research Institute, Tabriz University of Medical Sciences, Tabriz, Iran

***Correspondence :**
Roya Dolatkhah, MD PhD
Postal address: Hematology and Oncology Research Center, Tabriz University of Medical Sciences, Tabriz, Iran
Postal code/ P.O. Box: 5166614731
Telephone number: +98 4133361358
Email: royadolatkhah@yahoo.com
ORCID ID: 0000-0002-6897-7120

Date of first submission, April 7, 2021
Date of final revised submission, August 25, 2021
Date of acceptance, August 30, 2021

Cite this article as: Barnous R, Somi MH, Sanaat Z, Jabbaripoor P, Dolatkhah N, Dolatkhah R. Epidemiological aspects of colorectal cancer in East Azerbaijan, Northwest Iran: five year survival analysis. Unis. Med

5-year relative survival rates for colon cancer

These numbers are based on people diagnosed with cancers of the colon between 2010 and 2016.

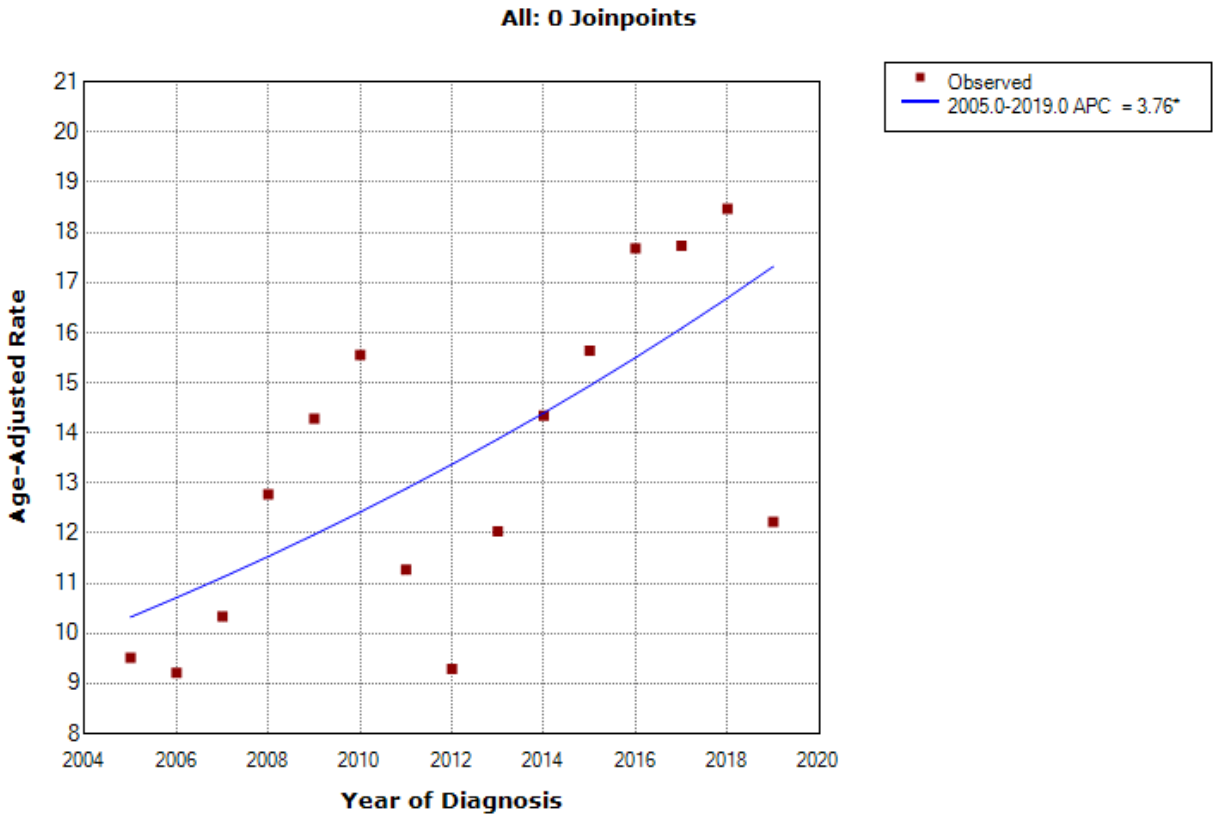
SEER stage	5-year relative survival rate
Localized	91%
Regional	72%
Distant	14%
All SEER stages combined	63%

5-year relative survival rates for rectal cancer

These numbers are based on people diagnosed with cancers of the rectum between 2010 and 2016.

SEER stage	5-year relative survival rate
Localized	89%
Regional	72%
Distant	16%
All SEER stages combined	67%

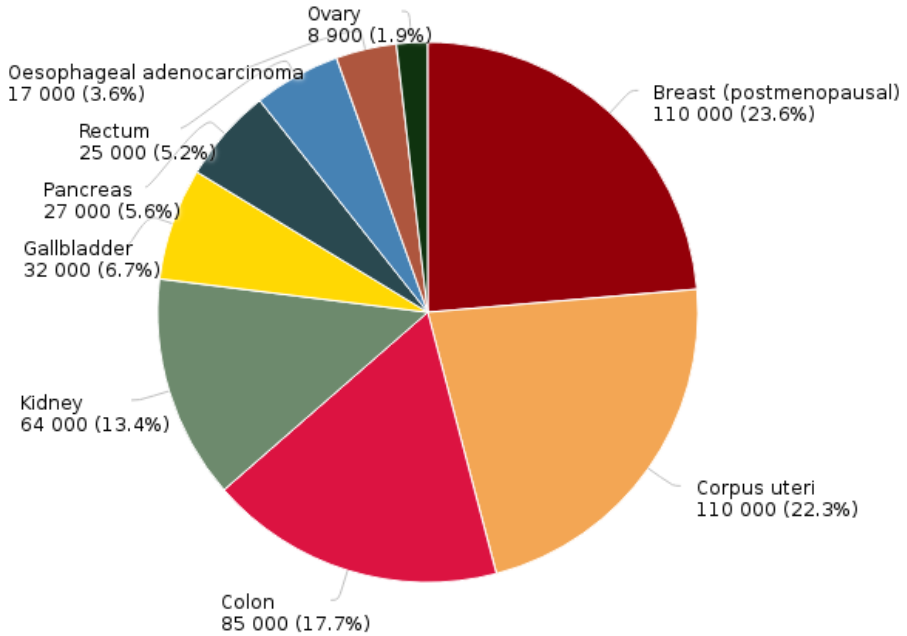
Age Standardized incidence Rate(per 100,000) Trends in East Azerbaijan , Iran , both sex



* Indicates that the Annual Percent Change (APC) is significantly different from zero at the alpha = 0.05 level.
Final Selected Model: 0 Joinpoints.


RISK
FACTORS

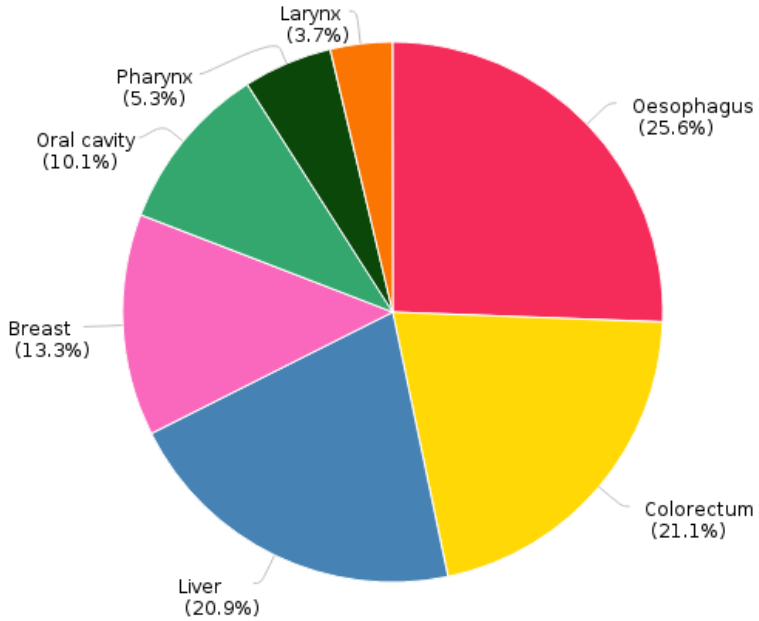
cer cases (at all anatomical sites) among both sexes (worldwide) in 2012 attributable to excess body mass index, shown by anatomical site as percentages of the total number of all such attributable cases at all anatomical sites in this population



Data source: GLOBOCAN 2012
Graph production: IARC World Health Organization

World Health Organization

Estimated number of new cancer cases in 2020 attributable to alcohol drinking, World, both sexes

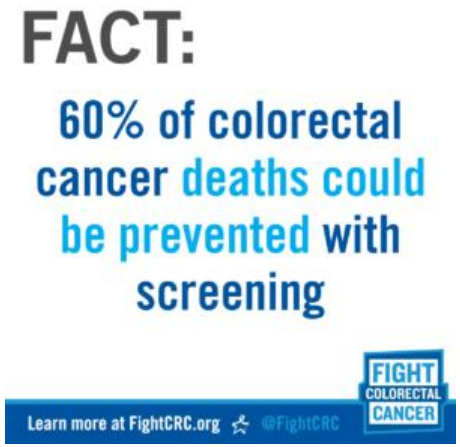


Total number of attributable cases: 740 000

Data source: Rumgay H et al. (2021)
Graph production: Global Cancer Observatory (http://gco.iarc.fr)
International Agency for Research on Cancer 2022

International Agency for Research on Cancer
World Health Organization

Colorectal Cancer Screening



National Comprehensive Cancer Network®

NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)

Colorectal Cancer Screening

Version 2.2021 — April 13, 2021

NCCN.org

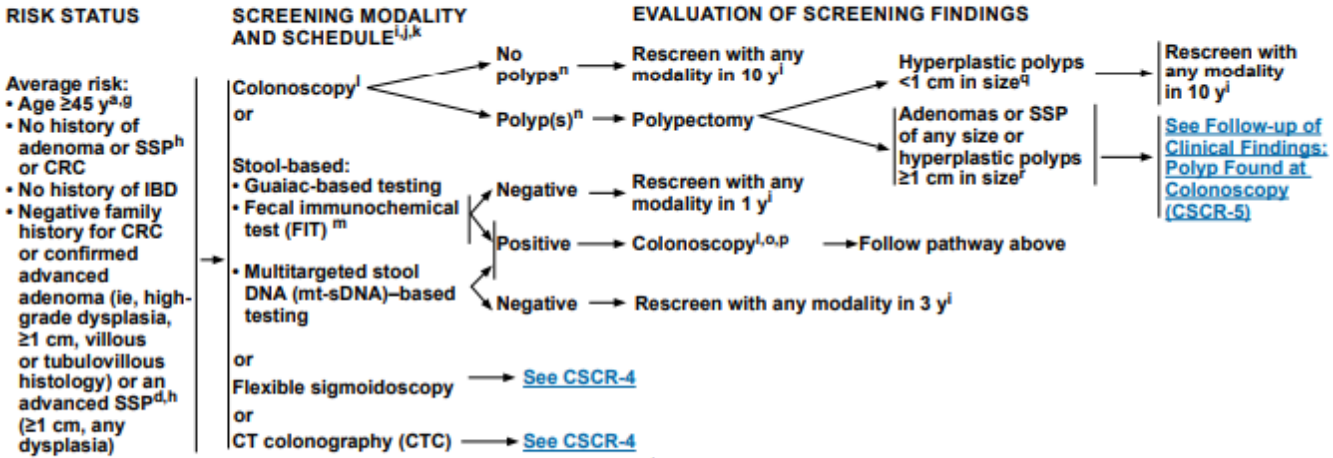
In Memoriam
Dawn Provenzale, MD, MS
Duke Cancer Institute
Chair, NCCN Guidelines for Colorectal Cancer Screening
Dr. Provenzale was a thoughtful, dedicated, and compassionate leader of the NCCN Guidelines for Colorectal Cancer Screening

Continue

National Comprehensive Cancer Network®

NCCN Guidelines Version 2.2021
Colorectal Cancer Screening

NCCN Guidelines Index
Table of Contents
Discussion



[a] The panel has reviewed existing data for beginning screening of average-risk individuals at age <50 years. Based on their assessment, the panel agrees that the data are stronger to support beginning screening at 50 years, but acknowledges that lower-level evidence supports a benefit for screening earlier. When initiating screening for all eligible individuals, the panel recommends a discussion of potential harms/risks and benefits, and the consideration of all recommended CRC screening options. Ladabaum U, et al. Gastroenterology 2019;157:137-148.

[d] Advanced SSPs are generally considered to have a comparable cancer risk and are managed similarly to advanced adenomas, rather than high-risk adenomas, a definition which includes multiplicity.

[g] CRC screening is recommended in adults aged 45–75 years who might have a life expectancy of ≥10 years. The decision to screen between ages 76–85 years should be individualized and include a discussion of the risks and benefits based on comorbidity status and estimated life expectancy. Eligible individuals who have not been previously screened are most likely to benefit in this age group.

[h] For details on classification, see footnote c on CSCR-1. For definition of commonly used terms, see CRC-GLOS-1.

[i] See Screening Modality and Schedule (CSCR-A).

[j] A blood test that detects circulating methylated SEPT9 DNA has been FDA-approved for CRC screening for those who refuse other screening modalities. Based on current data, the panel concludes that the interval for repeating testing is unknown/unclear. The panel will continue to review this strategy and monitor data as they emerge.

[k] Screening should be individualized and include a discussion of the risks and benefits of each modality.

[l] If colonoscopy is incomplete or the preparation is suboptimal, consider either repeating colonoscopy within a year or screening with another modality (Johnson DA, et al. Gastroenterology 2014;147:903-924).

[m] Based on recent evidence, FIT has been shown to have superior sensitivity to guaiac-based tests. However, guaiac-based testing has been shown to reduce mortality from CRC and high-sensitivity fecal occult blood test (FOBT) is a reasonable alternative if an immunochemical test cannot be used (Rabeneck L, et al. Can J Gastroenterol 2012;26:131-147; Scholefield JH, et al. Gut 2012;61:1036-1040).

[n] The term "polyp" refers to both polyp and nonpolypoid (flat) lesions.

[o] When a screening stool-based test is positive, a colonoscopy is recommended for further evaluation. Recommendations for an appropriate time frame for follow-up colonoscopy in this population lack a strong evidence base, but a large observational study and a meta-analysis reported significantly higher risks for CRC and advanced-stage disease when follow-up occurred 10 months or later with a trend towards increased cancer risk observed as early as 6 months after an abnormal result. Thus, we recommend that follow-up colonoscopy is completed ideally within 6 to 10 months after an abnormal stool-based test. (Corley DA, et al. JAMA 2017;317:1631-1641; Forbes N, et al. Clin Gastro Hepatol 2020).

[p] If the colonoscopy is negative after a FIT or mt-sDNA and no additional symptoms are present, there is no need for further tests.

[q] There are conflicting data to suggest that hyperplastic polyps (<1 cm) proximal to the sigmoid colon pose an increased risk and whether they should be managed differently.

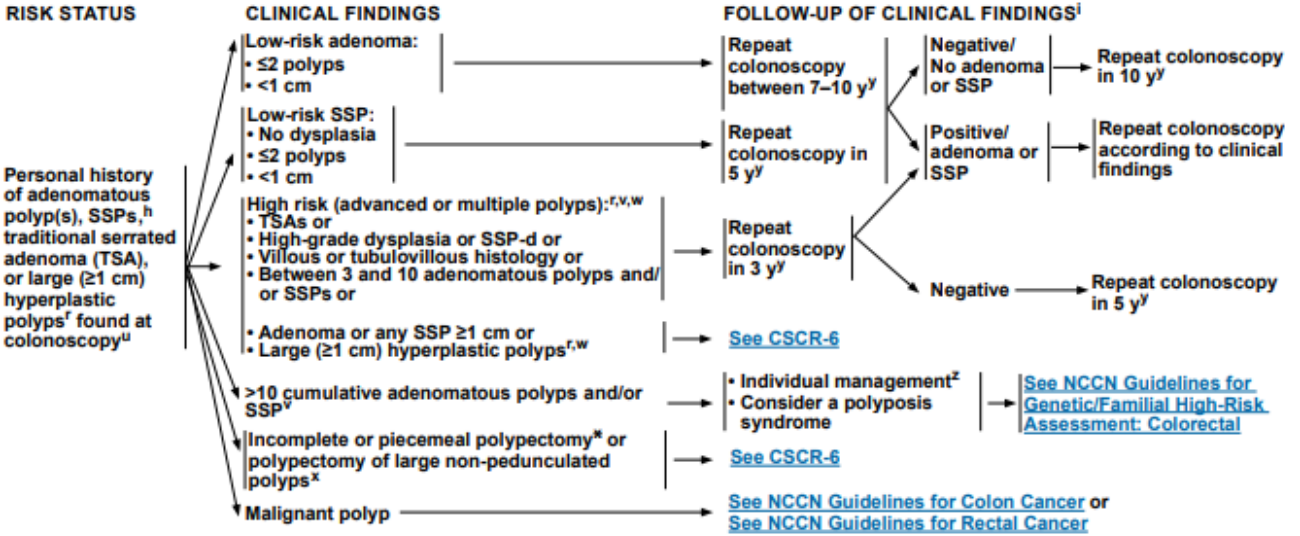
[r] There are limited data to support whether individuals with hyperplastic polyps ≥1 cm in size represent an increased risk group. Several analyses suggest that many of the larger polyps classified as hyperplastic in the past were re-classified as SSPs when reviewed by experts. For this reason, it is reasonable to follow patients with hyperplastic polyps ≥1 cm in size similarly to patients with SSPs, particularly if they have not been reviewed by an expert gastrointestinal pathologist.

National Comprehensive Cancer Network®

NCCN Guidelines Version 2.2021
Colorectal Cancer Screening

NCCN Guidelines Index
Table of Contents
Discussion

PERSONAL HISTORY OF POLYP FOUND AT COLONOSCOPY[r]



[h] For details on classification, see footnote c on CSCR-1. For definition of commonly used terms, see CRC-GLOS-1.

[i] See Screening Modality and Schedule (CSCR-A).

[r] There are limited data to support whether individuals with hyperplastic polyps ≥1 cm in size represent an increased risk group. Several analyses suggest that many of the larger polyps classified as hyperplastic in the past were re-classified as SSPs when reviewed by experts. For this reason, it is reasonable to follow patients with hyperplastic polyps ≥1 cm in size similarly to patients with SSPs, particularly if they have not been reviewed by an expert gastrointestinal pathologist.

[u] Surveillance colonoscopy is recommended in adults aged 45–75 years with a history of adenomas. Surveillance of individuals between ages 76–85 years should be individualized and include a discussion of risks and benefits of continued colonoscopy based on comorbidity status, estimated life expectancy, and findings on the last or the most recent colonoscopy.

[v] Ten or fewer polyps in the setting of a strong family history or younger age (<40 years) may sometimes be associated with an inherited polyposis syndrome.

[w] Surveillance intervals assume complete resection, adequate bowel preparation, and complete examination.

[x] Consider a referral to a center of expertise for large polyp management. For sessile polyps or LSL ≥20 mm size, recommend endoscopic tattoo placement for future lesion identification.

[y] Available data suggest that individuals with low-risk adenomas or SSPs may not have an increased risk of metachronous advanced colorectal neoplasia compared to the general population (Cottet V, et al. Gut 2012:61:1180-1186; He X, et al. Gastroenterol 2019;158:852-861). Any recommendation for a shorter interval should include a discussion with the individual based on an assessment of individual risk, including age, family history, comorbidity, and the results of previous colonoscopies.

[z] If genetic testing is negative or if evaluation is not performed, repeat colonoscopy within 1–3 years.

American Cancer Society®

2018 Colorectal Cancer Screening Guideline
for men and women at average risk

Ages 45 – 75

Get screened. Several types of tests can be used. Talk to your doctor about which option is best for you.

Ages 76 – 85

Talk to your doctor about whether you should continue screening. When deciding, take into account your own preferences, overall health, and past screening history.

Age 85 +

People should no longer get colorectal cancer screening.

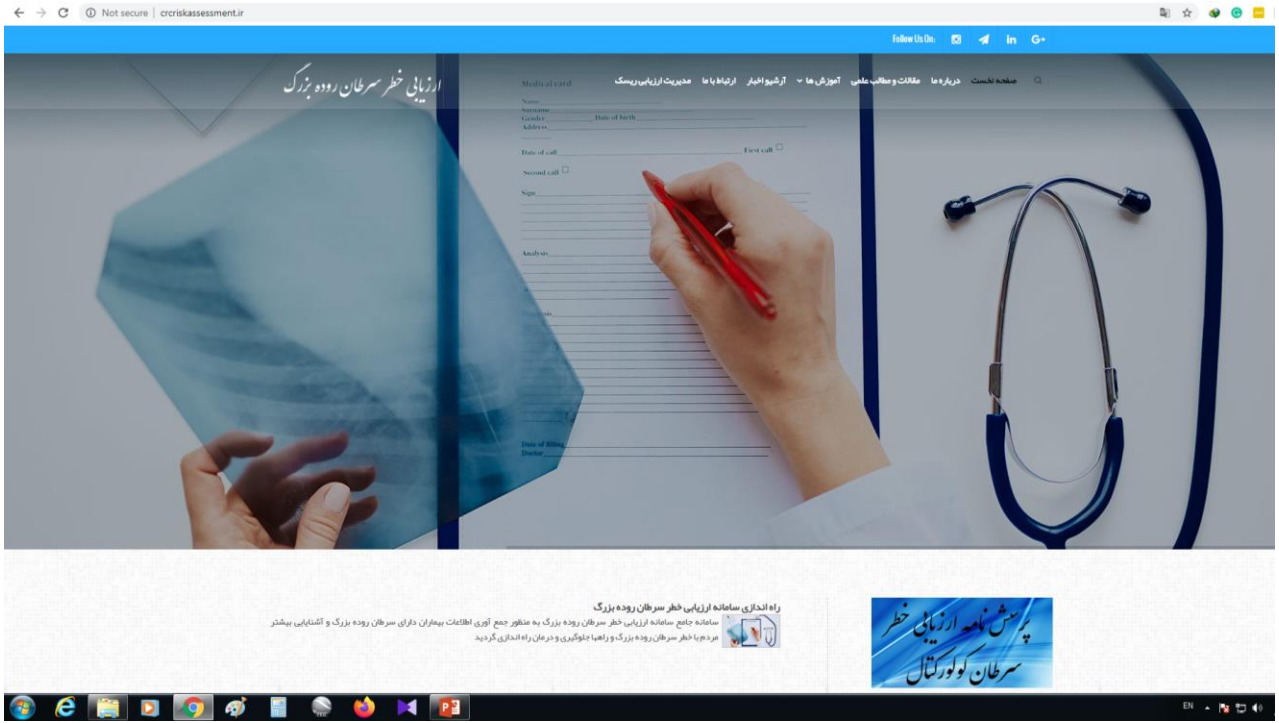
TESTING OPTIONS

- **Stool-based tests** look for signs of cancer in a person's stool.
- **Visual exams** such as colonoscopy or CT colonography, look at the inside of the colon and rectum for polyps or cancer.
- No matter which test you choose, the most important thing is to get tested.

Visit **cancer.org/colonguidelines** to learn more.

All positive results on non-colonoscopy screening tests should be followed up with a timely colonoscopy to complete the screening process. Talk to your doctor about screening, and contact your insurance provider about insurance coverage for screening.

http://crcriskassessment.ir/



اطلاعات تماس

آدرس : تبریز - مرکز تحقیقات هماتولوژی و انکولوژی
-دانشگاه علوم پزشکی تبریز - بیمارستان شهید قاضی
طباطبایی
کد پستی : 5166614731
تلفن : 04133361058
فاکس : 04133343844
ایمیل : royadolatkhah@yahoo.com
ایمیل : herc.tums@gmail.com
ایمیل : info@crcriskassessment.ir

دانلود اپلیکیشن

دریافت نسخه iOS از اناردونی

دریافت نسخه مستقیم android

دریافت از بازار

نسخه وب پرسشنامه

لینک های مفید

وزارت بهداشت، درمان و آموزش پزشکی

دانشگاه علوم پزشکی و خدمات بهداشتی درمانی تبریز

معاونت درمان دانشگاه علوم پزشکی تبریز

مرکز تحقیقاتی هماتولوژی و انکولوژی

مرکز تحقیقات مدیریت خدمات بهداشتی درمانی تبریز

مرکز تحقیقات بیماری های کبد و گوارش

شبکه ملی تحقیقات سرطان

Website:
https://eapbcr.tbzmed.ac.ir/ ,
eapbcr@tbzmed.ac.ir

Thank you