Incidence

1-Global incidence and mortality of severe fungal disease

By Denning, DW (Denning, David W.) [1] , [2], (provided by Clarivate), Source: LANCET INFECTIOUS DISEASES, Volume: 24, Issue: 7, Page: e428-e438, DOI: 10.1016/S1473-3099(23)00692-8, Published: JUL 2024, Early Access: JUN 2024, Indexed: 2024-07-08, Document Type: Review

Abstract

Current estimates of fungal disease incidence and mortality are imprecise. Population at risk denominators were used to estimate annual incidence for 2019-21. Extensive literature searches from 2010 to 2023 were combined with over 85 papers on individual country and global disease burden. Crude and attributable mortality were estimated using a combination of untreated mortality, the proportion of patients who are treated, and percentage survival in treated patients. Awareness, guidelines, and accessibility of diagnostics and therapies informed the ratio of treated to untreated cases. Estimates do not include influenza or COVID-19 outbreaks. Data from more than 120 countries were included. Annually, over 2 113 000 people develop invasive aspergillosis in the context of chronic obstructive pulmonary disease, intensive care, lung cancer, or haematological malignancy, with a crude annual mortality of 1 801 000 (852%). The annual incidence of chronic pulmonary aspergillosis is 1 837 272, with 340 000 (185%) deaths. About 1 565 000 people have a Candida bloodstream infection or invasive candidiasis each year, with 995 000 deaths (636%). Pneumocystis pneumonia affects 505 000 people, with 214 000 deaths (424%). Cryptococcal meningitis affects 194 000 people, with 147 000 deaths (758%). Other major life-threatening fungal infections affect about 300 000 people, causing 161 000 deaths (537%). Fungal asthma affects approximately 115 million people and might contribute to 46 000 asthma deaths annually. These updated estimates suggest an annual incidence of 65 million invasive fungal infections and 38 million deaths, of which about 25 million (68%; range 35-90) were directly attributable.

Keywords

Keywords Plus

INTENSIVE-CARE-UNITCHRONIC PULMONARY ASPERGILLOSISCRYPTOCOCCAL MENINGITISBURDENINFECTIONSDIAGNOSIS

Incidence

2-Global patterns and trends in breast cancer incidence and mortality across 185 countries

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By Kim, J (Kim, Joanne) [1] ; Harper, A (Harper, Andrew) [2] ; Mccormack, V (Mccormack, Valerie) [2] ; Sung, HYA (Sung, Hyuna) [3] ; Houssami, N (Houssami, Nehmat) [4] ; Morgan, E (Morgan, Eileen) [5] ; Mutebi, M (Mutebi, Miriam) [6] ; Garvey, G (Garvey, Gail) [7] ; Soerjomataram, I (Soerjomataram, Isabelle) [5] ; Fidler-Benaoudia, MM (Fidler-Benaoudia, Miranda M.) [2] , [8] , [9]
(provided by Clarivate) Source NATURE MEDICINE Volume 31 Issue 4 DOI 10.1038/s41591-025-03502-3 Published APR 2025 Early Access FEB 2025 Indexed 2025-03-01 Document Type Article

Abstract

Updates of current and projected estimates of the burden are critical to monitoring the success of ongoing efforts in breast cancer control, such as the World Health Organization Global Breast Cancer Initiative, which aims to reduce breast cancer mortality by 2.5% per year. We investigated the current (2022) and future (2050) global burden of female breast cancer overall, and by age group, in 185 countries using the GLOBOCAN database, and 10-year trends in incidence and mortality rates in 50 and 46 countries, respectively, using the Cancer Incidence in Five Continents plus and World Health Organization mortality databases. Globally, 2.3 million new cases and 670,000 deaths from female breast cancer occurred in 2022. Annual rates increased by 1-5% in half of examined countries. Mortality rates decreased in 29 countries with very high Human Development Index (HDI), and seven countries (for example, Belgium and Denmark) are meeting the Global Breast Cancer Initiative goal of at least a 2.5% decrease each year. By 2050, new cases and deaths will have increased by 38% and 68%, respectively, disproportionately impacting low-HDI countries. High-quality cancer and vital status data, and continued progress in early diagnosis and access to treatment, are needed in countries with low and medium HDI to address inequities and monitor cancer control goals.

Keywords

Keywords Plus

SURVIVALCARE

Incidence

3-Global variations in lung cancer incidence by histological subtype in 2020: a population-based study

By Zhang, YT (Zhang, Yanting) [1] ; Vaccarella, S (Vaccarella, Salvatore) [2] ; Morgan, E (Morgan, Eileen) [2] ; Li, MM (Li, Mengmeng) [3] ; Etxeberria, J (Etxeberria, Jaione) [4] ; Chokunonga, E (Chokunonga, Eric) [5] ; Manraj, SS (Manraj, Shyam Shunker) [6] ; Kamate, B (Kamate, Bakarou) [7] ; Omonisi, A (Omonisi, Abidemi) [8] ; Bray, F (Bray, Freddie) [2], (provided by Clarivate) **Source LANCET ONCOLOGY Volume 24 Issue 11 Page 1206-1218 DOI 10.1016/S1470-2045(23)00444-8 Published NOV 2023 Early Access OCT 2023 Indexed 2023-11-30 Document Type Article**

Abstract

Background Lung cancer is the second most common cancer worldwide, yet the distribution by histological subtype remains unknown. We aimed to quantify the global, regional, and national burden of lung cancer incidence for the four main subtypes in 185 countries and territories.Methods In this population-based study, we used data from Cancer Incidence in Five Continents Volume XI and the African Cancer Registry Network to assess the proportions of adenocarcinoma, squamous cell carcinoma, small-cell carcinoma, and large-cell carcinoma among all lung cancers by country, sex, and age group and subsequently applied these data to corresponding national (GLOBOCAN) estimates of lung cancer incidence in 2020. Unspecified morphologies were reallocated to specified subtypes. Age-standardised incidence rates were calculated using the world standard population to compare subtype risks worldwide, adjusted for differences in age composition between populations by country. Findings In 2020, there were an estimated 2 206 771 new cases of lung cancer, with 1 435 943 in males and 770 828 in females worldwide. In males, 560 108 (39%) of all lung cancer cases were adenocarcinoma, 351 807 (25%) were squamous cell carcinoma, 163 862 (11%) were small-cell carcinoma, and 115 322 (8%) were large-cell carcinoma cases. In females, 440 510 (57%) of all lung cancer cases were adenocarcinoma, 91 070 (12%) were squamous cell carcinoma, 68 224 (9%) were small-cell carcinoma, and 49 246 (6%) were large-cell carcinoma cases. Age-standardised incidence rates for adenocarcinoma, squamous cell carcinoma, small-cell carcinoma, and large-cell carcinoma, respectively, were estimated to be 12 center dot 4, 7 center dot 7, 3 center dot 6, and 2 center dot 6 per 100 000 person-years in males and 8 center dot 3, 1 center dot 6, 1 center dot 3, and 0 center dot 9 per 100 000 person-years in females worldwide. The incidence rates of adenocarcinoma exceeded those of squamous cell carcinoma in 150 of 185 countries in males and in all 185 countries in females. The highest age-standardised incidence rates per 100 000 person-years for adenocarcinoma, squamous cell carcinoma, small-cell carcinoma, and large-cell carcinoma, respectively, for males occurred in eastern Asia (23 center dot 5), central and eastern Europe (17 center dot 5), western Asia (7 center dot 2), and south-eastern Asia (11 center dot 0); and for females occurred in eastern Asia (16 center dot 0), northern America (5 center dot 4), northern America (4 center dot 7), and south-eastern Asia (3 center dot 4). The incidence of each subtype showed a clear gradient according to the Human Development Index for male and female individuals, with increased rates in high and very high Human Development Index countries. Interpretation Adenocarcinoma has become the most common subtype of lung cancer globally in 2020, with incidence rates in males exceeding those of squamous cell carcinoma in most countries, and in females in all countries. Our findings provide new insights into the nature of the

global lung cancer burden and facilitates tailored national preventive actions within each world region.

Keywords

Keywords Plus

AIR-POLLUTIONTRENDSADENOCARCINOMAPATTERNSSMOKINGBURDENRATESRISK

Incidence

4-Global Prevalence of Helicobacter pylori Infection and Incidence of Gastric Cancer Between 1980 and 2022

By Chen, YC (Chen, Yi-Chu) [1] ; Malfertheiner, P (Malfertheiner, Peter) [2] , [3] ; Yu, HT (Yu, Hao-Ting) [1] ; Kuo, CL (Kuo, Chih-Lin) [1] ; Chang, YY (Chang, Yung-Yueh) [1] ; Meng, FT (Meng, Fan-Tsui) [1] ; Wu, YX (Wu, Yu-Xuan) [4] ; Hsiao, JL (Hsiao, Juo-Lun) [5] ; Chen, MJ (Chen, Mei-Jyh) [6] ; Lin, KP (Lin, Kun-Pei) [6] , [7] , [8] ; **(provided by Clarivate) Source GASTROENTEROLOGY Volume 166 Issue 4 Page 605-619 DOI 10.1053/j.gastro.2023.12.022 Published APR 2024 Early Access MAR 2024 Indexed 2024-05-19 Document Type Article**

Abstract

BACKGROUND & AIMS: We aimed to assess the secular trend of the global prevalence of Helicobacter pylori (H pylori) infection in adults and children/adolescents and to show its relation to that of gastric cancer incidence. METHODS: We performed a systematic review and meta -analysis to calculate overall prevalence, adjusted by multivariate meta -regression analysis. The incidence rates of gastric cancer were derived from the Global Burden of Disease Study and Cancer Incidence in Five Continents. RESULTS: Of the 16,976 articles screened, 1748 articles from 111 countries were eligible for analysis. The crude global prevalence of H pylori has reduced from 52.6% (95% con fi - dence interval [CI], 49.6% - 55.6%) before 1990 to 43.9% (95% CI, 42.3% - 45.5%) in adults during 2015 through 2022, but was as still as high as 35.1% (95% CI, 30.5% - 40.1%) in children and adolescents during 2015 through 2022. Secular trend and multivariate regression analyses showed that the global prevalence of H pylori has declined by 15.9% (95% CI, - 20.5% to - 11.3%) over the last 3 decades in adults, but not in children and adolescents. Signi fi cant reduction of H pylori prevalence was observed in adults in the Western Paci fi c, Southeast Asian, and African regions. However, H pylori prevalence was not signi fi cantly reduced in children and adolescents in any World Health Organization regions. The incidence of gastric cancer has decreased globally and in various countries where the prevalence of H pylori infection has declined. CONCLUSIONS: The global prevalence of H pylori infection has declined during the last 3 decades in adults, but not in children and adolescents. The results raised the hypothesis that the public health drive to reduce the prevalence of H pylori as a strategy to reduce the incidence of gastric cancer in the population should be con fi rmed in large-scale clinical trials.

Keywords

Author Keywords

Helicobacter pyloriPrevalenceGastric CancerIncidenceMeta-Analysis

Keywords Plus

METAANALYSISERADICATIONPREVENTIONBIASTOOL

Incidence

5-Global incidence and mortality trends of gastric cancer and predicted mortality of gastric cancer by 2035

By Lin, JL (Lin, Ju-Li) [1] , [2] ; Lin, JX (Lin, Jian-Xian) [1] , [2] , [3] ; Lin, GT (Lin, Guang-Tan) [1] , [2] ; Huang, CM (Huang, Chang-Ming) [1] , [2] , [3] ; Zheng, CH (Zheng, Chao-Hui) [1] , [2] ; Xie, JW (Xie, Jian-Wei) [1] , [2] ; Wang, JB (Wang, Jia-bin) [1] , [2] , [3] ; Lu, J (Lu, Jun) [1] , [2] ; Chen, QY (Chen, Qi-Yue) [1] , [2] ; Li, P (Li, Ping) [1] , [2] , [3] (provided by Clarivate) **Source BMC PUBLIC EALTH Volume 24 Issue 1 DOI 10.1186/s12889-024-19104-6 Article Number 1763 Published JUL 2 2024 Indexed 2024-07-12, Document Type Article**

Abstract

ObjectiveTo study the historical global incidence and mortality trends of gastric cancer and predicted mortality of gastric cancer by 2035. MethodsIncidence data were retrieved from the Cancer Incidence in Five Continents (CI5) volumes I-XI, and mortality data were obtained from the latest update of the World Health Organization (WHO) mortality database. We used join-point regression analysis to examine historical incidence and mortality trends and used the package NORDPRED in R to predict the number of deaths and mortality rates by 2035 by country and sex. ResultsMore than 1,089,000 new cases of gastric cancer and 769,000 related deaths were reported in 2020. The average annual percent change (AAPC) in the incidence of gastric cancer from 2003 to 2012 among the male population, South Korea, Japan, Malta, Canada, Cyprus, and Switzerland showed an increasing trend ($P > 0.05$); among the female population, Canada [AAPC, 1.2; (95%Cl, 0.5-2), $P < 0.05$] showed an increasing trend; and South Korea, Ecuador, Thailand, and Cyprus showed an increasing trend ($P > 0.05$). AAPC in the mortality of gastric cancer from 2006 to 2015 among the male population, Thailand [3.5 (95%cl, 1.6-5.4), $P < 0.05$] showed an increasing trend; Malta Island, New Zealand, Turkey, Switzerland, and Cyprus had an increasing trend ($P > 0.05$); among the male population aged 20-44, Thailand [AAPC, 3.4; (95%cl, 1.3-5.4), $P < 0.05$] showed an increasing trend; Norway, New Zealand, The Netherlands, Slovakia, France, Colombia, Lithuania, and the USA showed an increasing trend ($P > 0.05$). It is predicted that the mortality rate in Slovenia and France's female population will show an increasing trend by 2035. It is predicted that the absolute number of deaths in the Israeli male population and in Chile, France, and Canada female population will increase by 2035. ConclusionIn the past decade, the incidence and mortality of gastric cancer have shown a decreasing trend; however, there are still some countries showing an increasing trend, especially among populations younger than 45 years. Although mortality in most countries is predicted to decline by 2035, the absolute number of deaths due to gastric cancer may further increase due to population growth.

Keywords
Author Keywords
Stomach NeoplasmsIncidenceMortalityGlobal trendsPredict mortality
Keywords Plus
HELICOBACTER-PYLORISTOMACH-CANCERRISK-FACTORSEPIDEMIOLOGYMETAANALYSISPREVENTIONREDUCTION

Incidence

6-Colorectal cancer incidence trends in younger versus older adults: an analysis of population-based cancer registry data

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By Sung, HYA (Sung, Hyuna) [1] ; Siegel, RL (Siegel, Rebecca L.) [1] ; Laversanne, M (Laversanne, Mathieu) [2] ; Jiang, CX (Jiang, Chenxi) [1] ; Morgan, E (Morgan, Eileen) [2] ; Zahwe, M (Zahwe, Mariam) [2] ; Cao, Y (Cao, Yin) [3] , [4] , [5] ; Bray, F (Bray, Freddie) [2] ; Jemal, A (Jemal, Ahmedin) [1]
(provided by Clarivate) Source LANCET ONCOLOGY Volume 26 Issue 1 Page 51-63 DOI 10.1016/S1470-2045(24)00600-4 Published JAN 2025 Early Access JAN 2025 Indexed 2025-01-25 Document Type Article

Abstract

Background Previous studies have shown that colorectal cancer incidence is increasing among younger adults (aged <50 years) in multiple high-income western countries in contrast with stabilising or decreasing trends in incidence in older adults (aged >= 50 years). This study aimed to investigate contemporary colorectal cancer incidence trends in younger adults versus older adults. Methods Colorectal cancer incidence data, including year of diagnosis, sex, and 5-year age group for 50 countries and territories, were extracted from the WHO-International Agency for Research on Cancer Cancer Incidence in Five Continents Plus database. The Human Development Index 2022 was retrieved from the United Nations Development Programme and grouped into very high (>080), high (070-079), medium (055-069), and low (<055) categories. Age-standardised incidence rates (ASR) per 100 000 person-years of early-onset (diagnosed between ages 25 to 49 years) and late-onset (diagnosed between ages 50 to 74 years) colorectal cancer (ICD 10th revision, C18-20), diagnosed between 1943-2003 and 2015-17, were calculated using the direct method and Segi-Doll world standard population). The primary study objective was to examine contemporary colorectal cancer incidence trends in younger adults versus older adults using data until 2017 from 50 countries and territories. Temporal trends were visualised and quantified with joinpoint regression, stratified by age at diagnosis (25-49 years or 50-74 years). Average annual percentage changes (AAPC) were estimated. Findings In the most recent 5 years (2013-17 for all countries analysed, except for Japan [2011-15], Spain [2012-16], and Costa Rica [2012-16]), the incidence rate of early-onset colorectal cancer was highest in Australia (ASR 165 [95% CI 161-169]), the USA (Puerto Rico; 152 [142-162]), New Zealand (148 [140-156]), the USA (148 [147-149]), and South Korea (143 [140-145]) and lowest in Uganda (44 [36-52]) and India (35 [33-37]). The highest incidence rates among older adults were found in the Netherlands (168 center dot 4 [1669-1700]) and Denmark (158 center dot 3 [1558-1609]) and the lowest were in Uganda (45 center dot 9 [385-514]) and India (23 center dot 5 [228-243]). In terms of AAPC, in the most recent 10 years, incidence rates of early-onset colorectal cancer were stable in 23 countries, but increased in 27 countries with the greatest annual increases in New Zealand (AAPC 397% [95% CI 244-552]), Chile (396% [126-674]), Puerto Rico (381% [268-496]), and England (359% [312-406]). 14 of the 27 countries and territories showed either stable (Argentina, France, Ireland, Norway, and Puerto Rico) or decreasing (Australia, Canada, Germany, Israel, New Zealand, Slovenia, England, Scotland, and the USA) trends in older adults.

For the 13 countries with increasing trends in both age groups, the average annual percentage increase in younger compared to older adults was higher in Chile, Japan, Sweden, the Netherlands, Croatia, and

Incidence

Finland; lower in Thailand, France (Martinique), Denmark, and Costa Rica; and similar in T & uuml;rkiye, Ecuador, and Belarus. The rise in early-onset colorectal cancer was faster among men than women in Chile, Puerto Rico, Argentina, Ecuador, Thailand, Sweden, Israel, and Croatia, whereas faster increase among women compared to men was in England, Norway, Australia, T & uuml;rkiye, Costa Rica, and Scotland. Interpretation Early-onset colorectal cancer incidence rates are rising in 27 of 50 countries and territories examined, with the rise either exclusive to early-onset disease or faster than the increase in older adults in 20 of the 27 countries. The findings underscore the need for intensified efforts to identify factors driving these trends and increase awareness to help facilitate early detection.

Keywords

Keywords Plus

RISKCOUNTRIESMORTALITYOBESITY

Incidence

7-Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries

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By Bray, F (Bray, Freddie) [1] , [3] ; Laversanne, M (Laversanne, Mathieu) [1] ; Sung, HYA (Sung, Hyuna) [2] ; Ferlay, J (Ferlay, Jacques) [1] ; Siegel, RL (Siegel, Rebecca L.) [2] ; Soerjomataram, I (Soerjomataram, Isabelle) [1] ; Jemal, A (Jemal, Ahmedin) [2] (provided by Clarivate) **Source CA-A CANCER JOURNAL FOR CLINICIANS Volume 74 Issue 3 Page 229-263 DOI 10.3322/caac.21834 Published MAY 2024 Early Access APR 2024 Indexed 2024-04-04 Document Type Article**

Abstract

This article presents global cancer statistics by world region for the year 2022 based on updated estimates from the International Agency for Research on Cancer (IARC). There were close to 20 million new cases of cancer in the year 2022 (including nonmelanoma skin cancers [NMSCs]) alongside 9.7 million deaths from cancer (including NMSC). The estimates suggest that approximately one in five men or women develop cancer in a lifetime, whereas around one in nine men and one in 12 women die from it. Lung cancer was the most frequently diagnosed cancer in 2022, responsible for almost 2.5 million new cases, or one in eight cancers worldwide (12.4% of all cancers globally), followed by cancers of the female breast (11.6%), colorectum (9.6%), prostate (7.3%), and stomach (4.9%). Lung cancer was also the leading cause of cancer death, with an estimated 1.8 million deaths (18.7%), followed by colorectal (9.3%), liver (7.8%), female breast (6.9%), and stomach (6.8%) cancers. Breast cancer and lung cancer were the most frequent cancers in women and men, respectively (both cases and deaths). Incidence rates (including NMSC) varied from four-fold to five-fold across world regions, from over 500 in Australia/New Zealand (507.9 per 100,000) to under 100 in Western Africa (97.1 per 100,000) among men, and from over 400 in Australia/New Zealand (410.5 per 100,000) to close to 100 in South-Central Asia (103.3 per 100,000) among women. The authors examine the geographic variability across 20 world regions for the 10 leading cancer types, discussing recent trends, the underlying determinants, and the prospects for global cancer prevention and control. With demographics-based predictions indicating that the number of new cases of cancer will reach 35 million by 2050, investments in prevention, including the targeting of key risk factors for cancer (including smoking, overweight and obesity, and infection), could avert millions of future cancer diagnoses and save many lives worldwide, bringing huge economic as well as societal dividends to countries over the forthcoming decades.

Keywords
Author Keywords
cancer burdencancer controlepidemiologyincidencemortality

Keywords Plus
ONSET COLORECTAL-CANCERTHYROID-CANCERLUNG-CANCERUNITED-STATESTASK-FORCEINCIDENCE TRENDSINCIDENCE RATESESOPHAGEAL CANCERGASTRIC-CANCERAIR-POLLUTION

Incidence

8-Changes in prevalence and incidence of dementia and risk factors for dementia: an analysis from cohort studies

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By Mukadam, N (Mukadam, Naaheed) [1] ; Wolters, FJ (Wolters, Frank J.) [2] ; Walsh, S (Walsh, Sebastian) [3] , [4] ; Wallace, L (Wallace, Lindsay) [3] , [4] ; Brayne, C (Brayne, Carol) [3] , [4] ; Matthews, FE (Matthews, Fiona E.) [5] ; Sacuiu, S (Sacuiu, Simona) [6] , [7] , [8] , [9] , [10] ; Skoog, I (Skoog, Ingmar) [8] , [9] , [10] ; Seshadri, S (Seshadri, Sudha) [11] , [12] ; Beiser, A (Beiser, Alexa) [12] ; **(provided by Clarivate) Source LANCET PUBLIC HEALTH Volume 9 Issue 7 Page e443-e460 DOI 10.1016/S2468-2667(24)00120-8 Published JUL 2024 Early Access JUN 2024 Indexed 2024-07-14 Document Type Article**

Abstract

Background Some cohort studies have reported a decline in dementia prevalence and incidence over time, although these findings have not been consistent across studies. We reviewed evidence on changes in dementia prevalence and incidence over time using published population -based cohort studies that had used consistent methods with each wave and aimed to quantify associated changes in risk factors over time using population attributable fractions (PAFs). Methods We searched for systematic reviews of cohort studies examining changes in dementia prevalence or incidence over time. We searched PubMed for publications from database inception up to Jan 12, 2023, using the search terms "systematic review" AND "dementia" AND ("prevalence" OR "incidence"), with no language restrictions. We repeated this search on March 28, 2024. From eligible systematic reviews, we searched the references and selected peerreviewed publications about cohort studies where dementia prevalence or incidence was measured in the same geographical location, at a minimum of two timepoints, and that reported age -standardised prevalence or incidence of dementia. Additionally, data had to be from population -based samples, in which participants' cognitive status was assessed and where validated criteria were used to diagnose dementia. We extracted summary -level data from each paper about dementia risk factors, contacting authors when such data were not available in the published paper, and calculated PAFs for each risk factor at all available timepoints. Where possible, we linked changes in dementia prevalence or incidence with changes in the prevalence of risk factors. Findings We identified 1925 records in our initial search, of which five eligible systematic reviews were identified. Within these systematic reviews, we identified 71 potentially eligible primary papers, of which 27 were included in our analysis. 13 (48%) of 27 primary papers reported change in prevalence of dementia, ten (37%) reported change in incidence of dementia, and four (15%) reported change in both incidence and prevalence of dementia. Studies reporting change in dementia incidence over time in Europe (n=5) and the USA (n=5) consistently reported a declining incidence in dementia. One study from Japan reported an increase in dementia prevalence and incidence and a stable incidence was reported in one study from Nigeria. Overall, across studies, the PAFs for less education or smoking, or both, generally declined over time, whereas PAFs for obesity, hypertension, and diabetes generally increased. The decrease in PAFs for less education and smoking was associated with a decline in the incidence of dementia in the Framingham study (Framingham, MA, USA, 1997-2013), the only study with sufficient data to allow analysis. Interpretation Our findings suggest that lifestyle

interventions such as compulsory education and reducing rates of smoking through country -level policy changes could be associated with an observed reduction, and therefore future reduction, in the incidence of dementia. More studies are needed in low-income and middle -income countries, where the burden of dementia is highest, and continues to increase. Funding National Institute for Health and Care Research Three Schools' Dementia Research Programme.

Keywords

Keywords Plus

UNITED-STATESALZHEIMERS-DISEASEAFRICAN-AMERICANSSECULAR TRENDSTIME PERIODSINTERVENTIONPREVENTIONENGLAND

Incidence

9-Addition of midodrine to albumin reduces the incidence of complications of large-volume paracentesis: an RCT comparing midodrine, terlipressin, and albumin

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By Kulkarni, AV (Kulkarni, Anand V.) [1] ; Maiwall, R (Maiwall, Rakhi) [1] ; Arora, V (Arora, Vinod) [1] ; Jindal, A (Jindal, Ankur) [1] ; Thomas, S (Thomas, Sherin) [2] ; Ali, R (Ali, Rehmat) [1] ; Baweja, S (Baweja, Sukriti) [3] ; Bhardwaj, A (Bhardwaj, Ankit) [4] ; Kumar, G (Kumar, Guresh) [4] ; Sarin, SK (Sarin, Shiv Kumar) [1] (provided by Clarivate) **Source HEPATOLOGY INTERNATIONAL Volume 19 Issue 5 Page 1231-1241 DOI 10.1007/s12072-025-10841-3 Published OCT 2025 Early Access JUL 2025 Indexed 2025-07-10 Document Type Article**

Abstract

Background and aims Large-volume paracentesis (LVP), a therapeutic procedure for cirrhosis patients with refractory ascites, is associated with paracentesis-induced circulatory dysfunction (PICD). While albumin infusion is known to prevent PICD, it is unknown whether the addition of vasoconstrictors to albumin reduces complications of LVP. Methods Cirrhosis patients undergoing LVP for refractory ascites were randomized to receive albumin alone (Gr. I), terlipressin with albumin (Gr.II), or midodrine with albumin (Gr. III). The primary endpoint was the incidence of PICD, and the secondary endpoints were the incidence of new-onset complications (hyponatremia, acute kidney injury, and encephalopathy), 28-day survival and adverse events to therapy. Results One hundred and sixty-fifty cirrhosis patients with refractory ascites undergoing LVP were equally randomized to 3 groups. The incidence of PICD in Gr. I (14%), II (7%), and III (11%) was similar (p = 0.46). Mean arterial pressure (MAP) reduced in Gr.I and II compared to the rise in Gr. III on day 3 (Delta MAP: Gr.I = - 8.2 +/- 5.01; Gr.II = - 4.34 +/- 5.82; Gr. III = 9.16 +/- 5.14 mmHg; p < 0.001), with a statistically significant rise in PRA (ng/ml/hour) at day 6 in Gr. I and II than in Gr. III. The incidence of new-onset complications was significantly higher in Gr.I (52.72%) and Gr.II (45.46%) than Gr.III (23.63%) (p = 0.005). Overall mortality on day 28 was not different between the groups. Conclusions PICD remains a challenge even in hospitalized settings. The addition of oral midodrine to albumin prevents hypotensive response on day 3, thereby reducing the incidence of new-onset complications following LVP.

Keywords
Author Keywords
Refractory ascitesVasoconstrictorsPlasma renin activityCirrhosisPortal hypertensionVITAL trial
Keywords Plus
INDUCED CIRCULATORY DYSFUNCTIONHEPATORENAL-SYNDROMEEUROPEAN ASSOCIATIONCIRRHOTIC-PATIENTSRANDOMIZED-TRIALASCITESINFUSIONPREVENTIONMANAGEMENT

Incidence

10-Trends in Cancer Incidence and Mortality Rates in Early-Onset and Older-Onset Age Groups in the United States, 2010-2019

ByShiels, MS (Shiels, Meredith S.) [1] ; Haque, AT (Haque, Anika T.) [1] ; de Gonzalez, AB (de Gonzalez, Amy Berrington) [2] ; Camargo, MC (Camargo, M. Constanza) [1] ; Clarke, MA (Clarke, Megan A.) [1] ; Lynn, BCD (Lynn, Brittny C. Davis) [1] ; Engels, EA (Engels, Eric A.) [1] ; Freedman, ND (Freedman, Neal D.) [3] ; Gierach, GL (Gierach, Gretchen L.) [1] ; Hofmann, JN (Hofmann, Jonathan N.) [1] ; **(provided by Clarivate) Source CANCER DISCOVERY Volume 15 Issue 7 Page 1363-1376 DOI 10.1158/2159-8290.CD-24-1678 Published JUL 3 2025 Indexed 2025-07-10 Document Type Article**

Abstract

We estimated age-standardized cancer incidence (2010-2019) and mortality rates (2010-2022) in the United States to investigate whether cancer rates have increased at younger ages. Fourteen cancers had incidence rates that increased in at least one early-onset age group (i.e., 15-29-, 30-39-, and 40-49-year-olds)-9 of these also increased in at least one older-onset age group (i.e., 50-59, 60-69, and 70-79; i.e., female breast, colorectal, kidney, testicular, uterine and pancreatic cancers, and several lymphoid neoplasms). The largest absolute increases in 2019 compared with expected diagnoses based on 2010 rates were female breast (n = 4,834 additional cancers), colorectal (n = 2,099), kidney (n = 1,793), and uterine cancers (n = 1,209). Although there were not concomitant increases in mortality rates for most cancers, colorectal, uterine, and testicular cancer mortality rates increased in early-onset age groups. The drivers of increasing incidence rates are cancer-specific and could include a combination of established and perhaps new etiologic factors, and increased detection.Significance: In the United States, incidence rates of some cancers have increased in early-onset age groups. For many of these cancers, rates have also increased in older-age groups, suggesting that the impact of changes in risk factor prevalence and/or improvements in detection could affect risk across the age range. See related commentary by Cann and Eng, p. 1309Significance: In the United States, incidence rates of some cancers have increased in early-onset age groups. For many of these cancers, rates have also increased in older-age groups, suggesting that the impact of changes in risk factor prevalence and/or improvements in detection could affect risk across the age range. See related commentary by Cann and Eng, p. 1309

Keywords

Keywords Plus

COLORECTAL-CANCERMYELOPROLIFERATIVE NEOPLASMSRISKPREVENTIONSURVIVALYOUNGERADULTSHPV

Incidence

11-Global, regional, and national burden of inguinal, femoral, and abdominal hernias: a systematic analysis of prevalence, incidence, deaths, and DALYs with projections to 2030

By Wang, F (Wang, Fan) [1] ; Ma, BZ (Ma, Bangzhen) [2] ; Ma, QY (Ma, Qiuyue) [1] ; Liu, XL (Liu, Xiaoli) [1] (provided by Clarivate)
Source INTERNATIONAL JOURNAL OF SURGERY Volume 110 Issue 4 Page 1951-1967 DOI 10.1097/JS9.0000000000001071 Published APR 2024 Indexed 2024-05-19 Document Type Article

Abstract

Background:Hernias, particularly inguinal, femoral, and abdominal, present a global health challenge. While the global burden of disease (GBD) study offers insights, systematic analyses of hernias remain limited. This research utilizes the GBD dataset to explore hernia implications, combining current statistics with 2030 projections and frontier analysis.Methods:We analyzed data from the 2019 GBD Study, focusing on hernia-related metrics: prevalence, incidence, deaths, and disability-adjusted life years (DALYs) across 204 countries and territories, grouped into 21 GBD regions by the socio-demographic index (SDI). Data analysis encompassed relative change calculations, as well as annual percentage change (APC) and average annual percentage change (AAPC), both of which are based on joinpoint regression analysis. The study additionally employed frontier analysis and utilized the Bayesian age-period-cohort model for predicting trends up to 2030. Analyses utilized R version 4.2.3.Results:From 1990 to 2019, the global prevalence of hernia cases surged by 36%, reaching over 32.5 million, even as age-standardized rates declined. A similar pattern was seen in mortality and DALYs, with absolute figures rising but age-standardized rates decreasing. Gender data between 1990 and 2019 showed consistent male dominance in hernia prevalence, even as rates for both genders fell. Regionally, Andean Latin America had the highest prevalence, with Central Sub-Saharan Africa and South Asia noting significant increases and decreases, respectively. Frontier analyses across 204 countries and territories linked higher SDIs with reduced hernia prevalence. Yet, some high SDI countries, like Japan and Lithuania, deviated unexpectedly. Predictions up to 2030 anticipate increasing hernia prevalence, predominantly in males, while age-standardized death rates and age-standardized DALY rates are expected to decline.Conclusions:Our analysis reveals a complex interplay between socio-demographic factors and hernia trends, emphasizing the need for targeted healthcare interventions. Despite advancements, vigilance and continuous research are essential for optimal hernia management globally.

Keywords
Author Keywords
annual percentage changeaverage annual percentage changefrontier analysisinguinalfemoralabdominal herniasthe bayesian age-period-cohort modelthe global burden of disease study

Keywords Plus
DISEASE

Incidence

12-Global type 1 diabetes prevalence, incidence, and mortality estimate 2025: Results from the International diabetes Federation Atlas, 11th Edition, and the T1D Index Version 3.0

By Ogle, GD (Ogle, Graham D.) [1] , [2] ; Wang, F (Wang, Fei) [3] ; Haynes, A (Haynes, Aveni) [1] ; Gregory, GA (Gregory, Gabriel A.) [1] ; King, TW (King, Thomas W.) [3] ; Deng, K (Deng, Kylie) [3] ; Dabelea, D (Dabelea, Dana) [4] ; James, S (James, Steven) [5] ; Jenkins, AJ (Jenkins, Alicia J.) [6] ; Li, X (Li, Xia) [7] , [8] , [9] ; **(provided by Clarivate) Source DIABETES RESEARCH AND CLINICAL PRACTICE Volume 225 DOI: 10.1016/j.diabres.2025.112277, Article Number 112277 Published JUL 2025 Indexed 2025-06-09 Document Type Article**

Abstract

Aims: Globally, symptomatic type 1 diabetes (T1D) prevalence varies markedly. The International Diabetes Federation 11th Edition Atlas/T1D Index Version 3.0 estimated 2025 numbers for 202 countries/territories ("countries"), and projected to 2040. Methods: The T1D Index model, a Markov model with sub-models for incidence-over-time, adult incidence, and mortality-over-time, was updated with recent population-based T1D incidence, mortality and prevalence studies. For countries without studies, data were extrapolated from countries with similar settings. Results: There are estimated 9.5 million people living with T1D globally (compared to 8.4 million in 2021, a 13 % increase), with 1.0 million of these aged 0-14, and 0.8 million aged 15-19 years. In lower-income countries, prevalent cases increased by 20 % from 1.8 million in 2021 to 2.1 million in 2025. Incident cases in 2025 are an estimated 513,000 (164,000 aged 0-14 and 58,000 aged 15-19 years), with incidence increasing by 2.4 % in the last year. Premature deaths are estimated at 174,000, with 17.2 % of these due to non-diagnosis soon after clinical onset. The estimated remaining life expectancy of a 10-year-old child diagnosed with T1D in 2025 varies between countries from 6 to 66 years. There are still no data available for 119 countries. The projected T1D population for 2040 is estimated to be14.7 million. Conclusions: The number of global T1D cases is rising quickly, especially in lower-income settings, due to increasing diagnosed incidence, falling mortality and ageing, and population growth. Contemporary data are unavailable for over 50% of all countries, highlighting need for epidemiological studies.

Keywords
Author Keywords
Type 1 diabetesChildrenAdultsPrevalenceIncidenceMortality

Keywords Plus
CHILDRENTRENDSCARE

Incidence

13-regional, and national incidence and mortality burden of non-COVID-19 lower respiratory infections and aetiologies, 1990-2021: a systematic analysis from the Global Burden of Disease Study 2021

By Bender, RG (Bender, Rose Grace) [1] , [9] ; Sirota, SB (Sirota, Sarah Brooke) [1] ; Swetschinski, LR (Swetschinski, Lucien R.) [1] ; Dominguez, RMV (Dominguez, Regina-Mae Villanueva) [1] ; Novotney, A (Novotney, Amanda) [1] ; Wool, EE (Wool, Eve E.) [1] ; Ikuta, KS (Ikuta, Kevin S.) [1] , [11] ; Vongpradith, A (Vongpradith, Avina) [1] ; Rogowski, ELB (Rogowski, Emma Lynn Best) [1] , [12] ; Doxey, M (Doxey, Matthew) [13] ; Group Author GBD 2021 Lower Resp Infect Antimicrobial Resistance Collaborators (GBD 2021 Lower Resp Infect Antimicrobial Resistance Collaborators) (provided by Clarivate) **Source LANCET INFECTIOUS DISEASES Volume 24 Issue 9 Page 974-1002 DOI 10.1016/S1473-3099(24)00176-2 Published SEP 2024 Early Access AUG 2024 Indexed 2025-01-21 Document Type Article**

Abstract

Background Lower respiratory infections (LRIs) are a major global contributor to morbidity and mortality. In 2020-21, non-pharmaceutical interventions associated with the COVID-19 pandemic reduced not only the transmission of SARS-CoV-2, but also the transmission of other LRI pathogens. Tracking LRI incidence and mortality, as well as the pathogens responsible, can guide health-system responses and funding priorities to reduce future burden. We present estimates from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2021 of the burden of non-COVID-19 LRIs and corresponding aetiologies from 1990 to 2021, inclusive of pandemic effects on the incidence and mortality of select respiratory viruses, globally, regionally, and for 204 countries and territories.

Methods We estimated mortality, incidence, and aetiology attribution for LRI, defined by the GBD as pneumonia or bronchiolitis, not inclusive of COVID-19. We analysed 26 259 site-years of mortality data using the Cause of Death Ensemble model to estimate LRI mortality rates. We analysed all available age-specific and sex-specific data sources, including published literature identified by a systematic review, as well as household surveys, hospital admissions, health insurance claims, and LRI mortality estimates, to generate internally consistent estimates of incidence and prevalence using DisMod-MR 2.1. For aetiology estimation, we analysed multiple causes of death, vital registration, hospital discharge, microbial laboratory, and literature data using a network analysis model to produce the proportion of LRI deaths and episodes attributable to the following pathogens: Acinetobacter baumannii, Chlamydia spp, Enterobacter spp, Escherichia coli, fungi, group B streptococcus, Haemophilus influenzae, influenza viruses, Klebsiella pneumoniae, Legionella spp, Mycoplasma spp, polymicrobial infections, Pseudomonas aeruginosa, respiratory syncytial virus (RSV), Staphylococcus aureus, Streptococcus pneumoniae, and other viruses (ie, the aggregate of all viruses studied except influenza and RSV), as well as a residual category of other bacterial pathogens.

Findings Globally, in 2021, we estimated 344 million (95% uncertainty interval [UI] 325-364) incident episodes of LRI, or 4350 episodes (4120-4610) per 100 000 population, and 2.18 million deaths (1.98-2.36), or 27.7 deaths (25.1-29.9) per 100 000. 502 000 deaths (406 000-611 000) were in children younger than 5 years, among which 254 000 deaths (197 000-320 000) occurred in countries with a low Socio-demographic Index. Of the 18 modelled pathogen categories in 2021, S pneumoniae was responsible for

the highest proportions of LRI episodes and deaths, with an estimated 97.9 million (92.1-104.0) episodes and 505 000 deaths (454 000-555 000) globally. The pathogens responsible for the second and third highest episode counts globally were other viral aetiologies (46.4 million [43.6-49.3] episodes) and Mycoplasma spp (25.3 million [23.5-27.2]), while those responsible for the second and third highest death counts were S aureus (424 000 [380 000-459 000]) and K pneumoniae (176 000 [158 000-194 000]). From 1990 to 2019, the global all-age non-COVID-19 LRI mortality rate declined by 41.7% (35.9-46.9), from 56.5 deaths (51.3-61.9) to 32.9 deaths (29.9-35.4) per 100 000. From 2019 to 2021, during the COVID-19 pandemic and implementation of associated nonpharmaceutical interventions, we estimated a 16.0% (13.1-18.6) decline in the global all-age non-COVID-19 LRI mortality rate, largely accounted for by a 71.8% (63.8-78.9) decline in the number of influenza deaths and a 66.7% (56.6-75.3) decline in the number of RSV deaths.

Interpretation Substantial progress has been made in reducing LRI mortality, but the burden remains high, especially in low-income and middle-income countries. During the COVID-19 pandemic, with its associated non-pharmaceutical interventions, global incident LRI cases and mortality attributable to influenza and RSV declined substantially. Expanding access to health-care services and vaccines, including S pneumoniae, H influenzae type B, and novel RSV vaccines, along with new low-cost interventions against S aureus, could mitigate the LRI burden and prevent transmission of LRI-causing pathogens.

Keywords

Keywords Plus

COMMUNITY-ACQUIRED PNEUMONIASTREPTOCOCCUS-PNEUMONIAECLINICAL CHARACTERISTICSHAEMOPHILUS-INFLUENZAERISK-FACTORSCOVID-19VACCINECHILDRENIMPACTINCOME

Incidence

14-Global incidence and mortality of severe fungal disease

By Denning, DW (Denning, David W.) [1] , [2] (provided by Clarivate) Source LANCET INFECTIOUS DISEASES Volume 24 Issue 7 Page e428-e438 DOI : 10.1016/S1473-3099(23)00692-8 Published JUL 2024 Early Access JUN 2024 Indexed 2024-07-08 Document Type Review

Abstract

Current estimates of fungal disease incidence and mortality are imprecise. Population at risk denominators were used to estimate annual incidence for 2019-21. Extensive literature searches from 2010 to 2023 were combined with over 85 papers on individual country and global disease burden. Crude and attributable mortality were estimated using a combination of untreated mortality, the proportion of patients who are treated, and percentage survival in treated patients. Awareness, guidelines, and accessibility of diagnostics and therapies informed the ratio of treated to untreated cases. Estimates do not include influenza or COVID-19 outbreaks. Data from more than 120 countries were included. Annually, over 2 113 000 people develop invasive aspergillosis in the context of chronic obstructive pulmonary disease, intensive care, lung cancer, or haematological malignancy, with a crude annual mortality of 1 801 000 (852%). The annual incidence of chronic pulmonary aspergillosis is 1 837 272, with 340 000 (185%) deaths. About 1 565 000 people have a Candida bloodstream infection or invasive candidiasis each year, with 995 000 deaths (636%). Pneumocystis pneumonia affects 505 000 people, with 214 000 deaths (424%). Cryptococcal meningitis affects 194 000 people, with 147 000 deaths (758%). Other major life-threatening fungal infections affect about 300 000 people, causing 161 000 deaths (537%). Fungal asthma affects approximately 115 million people and might contribute to 46 000 asthma deaths annually. These updated estimates suggest an annual incidence of 65 million invasive fungal infections and 38 million deaths, of which about 25 million (68%; range 35-90) were directly attributable.

Keywords

Keywords Plus

INTENSIVE-CARE-UNITCHRONIC PULMONARY ASPERGILLOSISCRYPTOCOCCAL MENINGITISBURDENINFECTIONSDIAGNOSIS

Incidence

15-Global patterns and trends in breast cancer incidence and mortality across 185 countries

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By Kim, J (Kim, Joanne) [1] ; Harper, A (Harper, Andrew) [2] ; Mccormack, V (Mccormack, Valerie) [2] ; Sung, HYA (Sung, Hyuna) [3] ; Houssami, N (Houssami, Nehmat) [4] ; Morgan, E (Morgan, Eileen) [5] ; Mutebi, M (Mutebi, Miriam) [6] ; Garvey, G (Garvey, Gail) [7] ; Soerjomataram, I (Soerjomataram, Isabelle) [5] ; Fidler-Benaoudia, MM (Fidler-Benaoudia, Miranda M.) [2] , [8] , [9]
(provided by Clarivate) Source: NATURE MEDICINE Volume 31 Issue 4 DOI 10.1038/s41591-025-03502-3 Published APR 2025 Early Access FEB 2025 Indexed 2025-03-01 Document Type Article

Abstract

Updates of current and projected estimates of the burden are critical to monitoring the success of ongoing efforts in breast cancer control, such as the World Health Organization Global Breast Cancer Initiative, which aims to reduce breast cancer mortality by 2.5% per year. We investigated the current (2022) and future (2050) global burden of female breast cancer overall, and by age group, in 185 countries using the GLOBOCAN database, and 10-year trends in incidence and mortality rates in 50 and 46 countries, respectively, using the Cancer Incidence in Five Continents plus and World Health Organization mortality databases. Globally, 2.3 million new cases and 670,000 deaths from female breast cancer occurred in 2022. Annual rates increased by 1-5% in half of examined countries. Mortality rates decreased in 29 countries with very high Human Development Index (HDI), and seven countries (for example, Belgium and Denmark) are meeting the Global Breast Cancer Initiative goal of at least a 2.5% decrease each year. By 2050, new cases and deaths will have increased by 38% and 68%, respectively, disproportionately impacting low-HDI countries. High-quality cancer and vital status data, and continued progress in early diagnosis and access to treatment, are needed in countries with low and medium HDI to address inequities and monitor cancer control goals.

Keywords

Keywords Plus

SURVIVALCARE

Incidence

16-Global variations in lung cancer incidence by histological subtype in 2020: a population-based study

By Zhang, YT (Zhang, Yanting) [1] ; Vaccarella, S (Vaccarella, Salvatore) [2] ; Morgan, E (Morgan, Eileen) [2] ; Li, MM (Li, Mengmeng) [3] ; Etxeberria, J (Etxeberria, Jaione) [4] ; Chokunonga, E (Chokunonga, Eric) [5] ; Manraj, SS (Manraj, Shyam Shunker) [6] ; Kamate, B (Kamate, Bakarou) [7] ; Omonisi, A (Omonisi, Abidemi) [8] ; Bray, F (Bray, Freddie) [2] (provided by Clarivate)
Source LANCET ONCOLOGY Volume: 24, Issue: 11, Page: 1206-1218 DOI: 10.1016/S1470-2045(23)00444-8 Published NOV 2023 Early Access OCT 2023 Indexed 2023-11-30 Document Type Article

Abstract

Background Lung cancer is the second most common cancer worldwide, yet the distribution by histological subtype remains unknown. We aimed to quantify the global, regional, and national burden of lung cancer incidence for the four main subtypes in 185 countries and territories.Methods In this population-based study, we used data from Cancer Incidence in Five Continents Volume XI and the African Cancer Registry Network to assess the proportions of adenocarcinoma, squamous cell carcinoma, small-cell carcinoma, and large-cell carcinoma among all lung cancers by country, sex, and age group and subsequently applied these data to corresponding national (GLOBOCAN) estimates of lung cancer incidence in 2020. Unspecified morphologies were reallocated to specified subtypes. Age-standardised incidence rates were calculated using the world standard population to compare subtype risks worldwide, adjusted for differences in age composition between populations by country. Findings In 2020, there were an estimated 2 206 771 new cases of lung cancer, with 1 435 943 in males and 770 828 in females worldwide. In males, 560 108 (39%) of all lung cancer cases were adenocarcinoma, 351 807 (25%) were squamous cell carcinoma, 163 862 (11%) were small-cell carcinoma, and 115 322 (8%) were large-cell carcinoma cases. In females, 440 510 (57%) of all lung cancer cases were adenocarcinoma, 91 070 (12%) were squamous cell carcinoma, 68 224 (9%) were small-cell carcinoma, and 49 246 (6%) were large-cell carcinoma cases. Age-standardised incidence rates for adenocarcinoma, squamous cell carcinoma, small-cell carcinoma, and large-cell carcinoma, respectively, were estimated to be 12 center dot 4, 7 center dot 7, 3 center dot 6, and 2 center dot 6 per 100 000 person-years in males and 8 center dot 3, 1 center dot 6, 1 center dot 3, and 0 center dot 9 per 100 000 person-years in females worldwide. The incidence rates of adenocarcinoma exceeded those of squamous cell carcinoma in 150 of 185 countries in males and in all 185 countries in females. The highest age-standardised incidence rates per 100 000 person-years for adenocarcinoma, squamous cell carcinoma, small-cell carcinoma, and large-cell carcinoma, respectively, for males occurred in eastern Asia (23 center dot 5), central and eastern Europe (17 center dot 5), western Asia (7 center dot 2), and south-eastern Asia (11 center dot 0); and for females occurred in eastern Asia (16 center dot 0), northern America (5 center dot 4), northern America (4 center dot 7), and south-eastern Asia (3 center dot 4). The incidence of each subtype showed a clear gradient according to the Human Development Index for male and female individuals, with increased rates in high and very high Human Development Index countries. Interpretation Adenocarcinoma has become the most common subtype of lung cancer globally in 2020, with incidence rates in males exceeding those of squamous cell carcinoma in most countries, and in females in all countries. Our findings provide new insights into the nature of the

global lung cancer burden and facilitates tailored national preventive actions within each world region.

Keywords

Keywords Plus

AIR-POLLUTIONTRENDSADENOCARCINOMAPATTERNSSMOKINGBURDENRATESRISK

Incidence

17-Global Prevalence of Helicobacter pylori Infection and Incidence of Gastric Cancer Between 1980 and 2022

By Chen, YC (Chen, Yi-Chu) [1] ; Malfertheiner, P (Malfertheiner, Peter) [2] , [3] ; Yu, HT (Yu, Hao-Ting) [1] ; Kuo, CL (Kuo, Chih-Lin) [1] ; Chang, YY (Chang, Yung-Yueh) [1] ; Meng, FT (Meng, Fan-Tsui) [1] ; Wu, YX (Wu, Yu-Xuan) [4] ; Hsiao, JL (Hsiao, Juo-Lun) [5] ; Chen, MJ (Chen, Mei-Jyh) [6] ; Lin, KP (Lin, Kun-Pei) [6] , [7] , [8] ; **(provided by Clarivate) Source GASTROENTEROLOGY Volume 166 Issue 4 Page 605-619 DOI 10.1053/j.gastro.2023.12.022 Published APR 2024 Early Access MAR 2024 Indexed 2024-05-19 Document Type Article**

Abstract

BACKGROUND & AIMS: We aimed to assess the secular trend of the global prevalence of Helicobacter pylori (H pylori) infection in adults and children/adolescents and to show its relation to that of gastric cancer incidence. METHODS: We performed a systematic review and meta -analysis to calculate overall prevalence, adjusted by multivariate meta -regression analysis. The incidence rates of gastric cancer were derived from the Global Burden of Disease Study and Cancer Incidence in Five Continents. RESULTS: Of the 16,976 articles screened, 1748 articles from 111 countries were eligible for analysis. The crude global prevalence of H pylori has reduced from 52.6% (95% con fi - dence interval [CI], 49.6% - 55.6%) before 1990 to 43.9% (95% CI, 42.3% - 45.5%) in adults during 2015 through 2022, but was as still as high as 35.1% (95% CI, 30.5% - 40.1%) in children and adolescents during 2015 through 2022. Secular trend and multivariate regression analyses showed that the global prevalence of H pylori has declined by 15.9% (95% CI, - 20.5% to - 11.3%) over the last 3 decades in adults, but not in children and adolescents. Signi fi cant reduction of H pylori prevalence was observed in adults in the Western Paci fi c, Southeast Asian, and African regions. However, H pylori prevalence was not signi fi cantly reduced in children and adolescents in any World Health Organization regions. The incidence of gastric cancer has decreased globally and in various countries where the prevalence of H pylori infection has declined. CONCLUSIONS: The global prevalence of H pylori infection has declined during the last 3 decades in adults, but not in children and adolescents. The results raised the hypothesis that the public health drive to reduce the prevalence of H pylori as a strategy to reduce the incidence of gastric cancer in the population should be con fi rmed in large-scale clinical trials.

Keywords
Author Keywords
Helicobacter pyloriPrevalenceGastric CancerIncidenceMeta-Analysis

Keywords Plus
METAANALYSISERADICATIONPREVENTIONBIASTOOL

Incidence

18-Global incidence and mortality trends of gastric cancer and predicted mortality of gastric cancer by 2035

By
Lin, JL (Lin, Ju-Li) [1] , [2] ; Lin, JX (Lin, Jian-Xian) [1] , [2] , [3] ; Lin, GT (Lin, Guang-Tan) [1] , [2] ; Huang, CM (Huang, Chang-Ming) [1] , [2] , [3] ; Zheng, CH (Zheng, Chao-Hui) [1] , [2] ; Xie, JW (Xie, Jian-Wei) [1] , [2] ; Wang, JB (Wang, Jia-bin) [1] , [2] , [3] ; Lu, J (Lu, Jun) [1] , [2] ; Chen, QY (Chen, Qi-Yue) [1] , [2] ; Li, P (Li, Ping) [1] , [2] , [3], **(provided by Clarivate) Source BMC PUBLIC HEALTH Volume 24 Issue 1 DOI 10.1186/s12889-024-19104-6 Article Number 1763 Published JUL 2 2024 Indexed 2024-07-12 Document Type Article**

Abstract

ObjectiveTo study the historical global incidence and mortality trends of gastric cancer and predicted mortality of gastric cancer by 2035. MethodsIncidence data were retrieved from the Cancer Incidence in Five Continents (CI5) volumes I-XI, and mortality data were obtained from the latest update of the World Health Organization (WHO) mortality database. We used join-point regression analysis to examine historical incidence and mortality trends and used the package NORDPRED in R to predict the number of deaths and mortality rates by 2035 by country and sex. ResultsMore than 1,089,000 new cases of gastric cancer and 769,000 related deaths were reported in 2020. The average annual percent change (AAPC) in the incidence of gastric cancer from 2003 to 2012 among the male population, South Korea, Japan, Malta, Canada, Cyprus, and Switzerland showed an increasing trend ($P > 0.05$); among the female population, Canada [AAPC, 1.2; (95%Cl, 0.5-2), $P < 0.05$] showed an increasing trend; and South Korea, Ecuador, Thailand, and Cyprus showed an increasing trend ($P > 0.05$). AAPC in the mortality of gastric cancer from 2006 to 2015 among the male population, Thailand [3.5 (95%cl, 1.6-5.4), $P < 0.05$] showed an increasing trend; Malta Island, New Zealand, Turkey, Switzerland, and Cyprus had an increasing trend ($P > 0.05$); among the male population aged 20-44, Thailand [AAPC, 3.4; (95%cl, 1.3-5.4), $P < 0.05$] showed an increasing trend; Norway, New Zealand, The Netherlands, Slovakia, France, Colombia, Lithuania, and the USA showed an increasing trend ($P > 0.05$). It is predicted that the mortality rate in Slovenia and France's female population will show an increasing trend by 2035. It is predicted that the absolute number of deaths in the Israeli male population and in Chile, France, and Canada female population will increase by 2035. ConclusionIn the past decade, the incidence and mortality of gastric cancer have shown a decreasing trend; however, there are still some countries showing an increasing trend, especially among populations younger than 45 years. Although mortality in most countries is predicted to decline by 2035, the absolute number of deaths due to gastric cancer may further increase due to population growth.

Keywords
Author Keywords
Stomach NeoplasmsIncidenceMortalityGlobal trendsPredict mortality

Keywords Plus

Incidence

HELICOBACTER-PYLORISTOMACH-CANCERRISK-FACTORSEPIDEMIOLOGYMETAANALYSISPREVENTIONREDUCTION

Incidence

19-Colorectal cancer incidence trends in younger versus older adults: an analysis of population-based cancer registry data

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By Sung, HYA (Sung, Hyuna) [1] ; Siegel, RL (Siegel, Rebecca L.) [1] ; Laversanne, M (Laversanne, Mathieu) [2] ; Jiang, CX (Jiang, Chenxi) [1] ; Morgan, E (Morgan, Eileen) [2] ; Zahwe, M (Zahwe, Mariam) [2] ; Cao, Y (Cao, Yin) [3] , [4] , [5] ; Bray, F (Bray, Freddie) [2] ; Jemal, A (Jemal, Ahmedin) [1]
(provided by Clarivate) Source LANCET ONCOLOGY Volume 26 Issue 1 Page 51-63 DOI 10.1016/S1470-2045(24)00600-4 Published JAN 2025 Early Access JAN 2025 Indexed 2025-01-25 Document Type Article

Abstract

Background Previous studies have shown that colorectal cancer incidence is increasing among younger adults (aged <50 years) in multiple high-income western countries in contrast with stabilising or decreasing trends in incidence in older adults (aged >= 50 years). This study aimed to investigate contemporary colorectal cancer incidence trends in younger adults versus older adults. Methods Colorectal cancer incidence data, including year of diagnosis, sex, and 5-year age group for 50 countries and territories, were extracted from the WHO-International Agency for Research on Cancer Cancer Incidence in Five Continents Plus database. The Human Development Index 2022 was retrieved from the United Nations Development Programme and grouped into very high (>080), high (070-079), medium (055-069), and low (<055) categories. Age-standardised incidence rates (ASR) per 100 000 person-years of early-onset (diagnosed between ages 25 to 49 years) and late-onset (diagnosed between ages 50 to 74 years) colorectal cancer (ICD 10th revision, C18-20), diagnosed between 1943-2003 and 2015-17, were calculated using the direct method and Segi-Doll world standard population). The primary study objective was to examine contemporary colorectal cancer incidence trends in younger adults versus older adults using data until 2017 from 50 countries and territories. Temporal trends were visualised and quantified with joinpoint regression, stratified by age at diagnosis (25-49 years or 50-74 years). Average annual percentage changes (AAPC) were estimated. Findings In the most recent 5 years (2013-17 for all countries analysed, except for Japan [2011-15], Spain [2012-16], and Costa Rica [2012-16]), the incidence rate of early-onset colorectal cancer was highest in Australia (ASR 165 [95% CI 161-169]), the USA (Puerto Rico; 152 [142-162]), New Zealand (148 [140-156]), the USA (148 [147-149]), and South Korea (143 [140-145]) and lowest in Uganda (44 [36-52]) and India (35 [33-37]). The highest incidence rates among older adults were found in the Netherlands (168 center dot 4 [1669-1700]) and Denmark (158 center dot 3 [1558-1609]) and the lowest were in Uganda (45 center dot 9 [385-514]) and India (23 center dot 5 [228-243]). In terms of AAPC, in the most recent 10 years, incidence rates of early-onset colorectal cancer were stable in 23 countries, but increased in 27 countries with the greatest annual increases in New Zealand (AAPC 397% [95% CI 244-552]), Chile (396% [126-674]), Puerto Rico (381% [268-496]), and England (359% [312-406]). 14 of the 27 countries and territories showed either stable (Argentina, France, Ireland, Norway, and Puerto Rico) or decreasing (Australia, Canada, Germany, Israel, New Zealand, Slovenia, England, Scotland, and the USA) trends in older adults.

For the 13 countries with increasing trends in both age groups, the average annual percentage increase in younger compared to older adults was higher in Chile, Japan, Sweden, the Netherlands, Croatia, and

Incidence

Finland; lower in Thailand, France (Martinique), Denmark, and Costa Rica; and similar in T & uuml;rkiye, Ecuador, and Belarus. The rise in early-onset colorectal cancer was faster among men than women in Chile, Puerto Rico, Argentina, Ecuador, Thailand, Sweden, Israel, and Croatia, whereas faster increase among women compared to men was in England, Norway, Australia, T & uuml; rkiye, Costa Rica, and Scotland. Interpretation Early-onset colorectal cancer incidence rates are rising in 27 of 50 countries and territories examined, with the rise either exclusive to early-onset disease or faster than the increase in older adults in 20 of the 27 countries. The findings underscore the need for intensified efforts to identify factors driving these trends and increase awareness to help facilitate early detection.

Keywords
Keywords Plus
RISKCOUNTRIESMORTALITYOBESITY

Incidence

20-Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries

By Bray, F (Bray, Freddie) [1] , [3] ; Laversanne, M (Laversanne, Mathieu) [1] ; Sung, HYA (Sung, Hyuna) [2] ; Ferlay, J (Ferlay, Jacques) [1] ; Siegel, RL (Siegel, Rebecca L.) [2] ; Soerjomataram, I (Soerjomataram, Isabelle) [1] ; Jemal, A (Jemal, Ahmedin) [2] (provided by Clarivate) Source CA-A CANCER JOURNAL FOR CLINICIANS Volume 74 Issue 3 Page 229-263 DOI 10.3322/caac.21834 Published MAY 2024 Early Access APR 2024 Indexed 2024-04-04 Document Type Article

Abstract

This article presents global cancer statistics by world region for the year 2022 based on updated estimates from the International Agency for Research on Cancer (IARC). There were close to 20 million new cases of cancer in the year 2022 (including nonmelanoma skin cancers [NMSCs]) alongside 9.7 million deaths from cancer (including NMSC). The estimates suggest that approximately one in five men or women develop cancer in a lifetime, whereas around one in nine men and one in 12 women die from it. Lung cancer was the most frequently diagnosed cancer in 2022, responsible for almost 2.5 million new cases, or one in eight cancers worldwide (12.4% of all cancers globally), followed by cancers of the female breast (11.6%), colorectum (9.6%), prostate (7.3%), and stomach (4.9%). Lung cancer was also the leading cause of cancer death, with an estimated 1.8 million deaths (18.7%), followed by colorectal (9.3%), liver (7.8%), female breast (6.9%), and stomach (6.8%) cancers. Breast cancer and lung cancer were the most frequent cancers in women and men, respectively (both cases and deaths). Incidence rates (including NMSC) varied from four-fold to five-fold across world regions, from over 500 in Australia/New Zealand (507.9 per 100,000) to under 100 in Western Africa (97.1 per 100,000) among men, and from over 400 in Australia/New Zealand (410.5 per 100,000) to close to 100 in South-Central Asia (103.3 per 100,000) among women. The authors examine the geographic variability across 20 world regions for the 10 leading cancer types, discussing recent trends, the underlying determinants, and the prospects for global cancer prevention and control. With demographics-based predictions indicating that the number of new cases of cancer will reach 35 million by 2050, investments in prevention, including the targeting of key risk factors for cancer (including smoking, overweight and obesity, and infection), could avert millions of future cancer diagnoses and save many lives worldwide, bringing huge economic as well as societal dividends to countries over the forthcoming decades.

Keywords
Author Keywords
cancer burdencancer controlepidemiologyincidencemortality

Keywords Plus
ONSET COLORECTAL-CANCERTHYROID-CANCERLUNG-CANCERUNITED-STATESTASK-FORCEINCIDENCE TRENDSINCIDENCE RATESESOPHAGEAL CANCERGASTRIC-CANCERAIR-POLLUTION

Incidence

21-Changes in prevalence and incidence of dementia and risk factors for dementia: an analysis from cohort studies

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By Mukadam, N (Mukadam, Naaheed) [1] ; Wolters, FJ (Wolters, Frank J.) [2] ; Walsh, S (Walsh, Sebastian) [3] , [4] ; Wallace, L (Wallace, Lindsay) [3] , [4] ; Brayne, C (Brayne, Carol) [3] , [4] ; Matthews, FE (Matthews, Fiona E.) [5] ; Sacuiu, S (Sacuiu, Simona) [6] , [7] , [8] , [9] , [10] ; Skoog, I (Skoog, Ingmar) [8] , [9] , [10] ; Seshadri, S (Seshadri, Sudha) [11] , [12] ; Beiser, A (Beiser, Alexa) [12] ; (provided by Clarivate) **Source LANCET PUBLIC HEALTH Volume 9 Issue 7 Page e443-e460 DOI 10.1016/S2468-2667(24)00120-8 Published JUL 2024 Early Access JUN 2024 Indexed 2024-07-14 Document Type Article**

Abstract

Background Some cohort studies have reported a decline in dementia prevalence and incidence over time, although these findings have not been consistent across studies. We reviewed evidence on changes in dementia prevalence and incidence over time using published population -based cohort studies that had used consistent methods with each wave and aimed to quantify associated changes in risk factors over time using population attributable fractions (PAFs). Methods We searched for systematic reviews of cohort studies examining changes in dementia prevalence or incidence over time. We searched PubMed for publications from database inception up to Jan 12, 2023, using the search terms "systematic review" AND "dementia" AND ("prevalence" OR "incidence"), with no language restrictions. We repeated this search on March 28, 2024. From eligible systematic reviews, we searched the references and selected peerreviewed publications about cohort studies where dementia prevalence or incidence was measured in the same geographical location, at a minimum of two timepoints, and that reported age -standardised prevalence or incidence of dementia. Additionally, data had to be from population -based samples, in which participants' cognitive status was assessed and where validated criteria were used to diagnose dementia. We extracted summary -level data from each paper about dementia risk factors, contacting authors when such data were not available in the published paper, and calculated PAFs for each risk factor at all available timepoints. Where possible, we linked changes in dementia prevalence or incidence with changes in the prevalence of risk factors. Findings We identified 1925 records in our initial search, of which five eligible systematic reviews were identified. Within these systematic reviews, we identified 71 potentially eligible primary papers, of which 27 were included in our analysis. 13 (48%) of 27 primary papers reported change in prevalence of dementia, ten (37%) reported change in incidence of dementia, and four (15%) reported change in both incidence and prevalence of dementia. Studies reporting change in dementia incidence over time in Europe (n=5) and the USA (n=5) consistently reported a declining incidence in dementia. One study from Japan reported an increase in dementia prevalence and incidence and a stable incidence was reported in one study from Nigeria. Overall, across studies, the PAFs for less education or smoking, or both, generally declined over time, whereas PAFs for obesity, hypertension, and diabetes generally increased. The decrease in PAFs for less education and smoking was associated with a decline in the incidence of dementia in the Framingham study (Framingham, MA, USA, 1997-2013), the only study with sufficient data to allow analysis. Interpretation Our findings suggest that lifestyle interventions

such as compulsory education and reducing rates of smoking through country -level policy changes could be associated with an observed reduction, and therefore future reduction, in the incidence of dementia. More studies are needed in low-income and middle -income countries, where the burden of dementia is highest, and continues to increase. Funding National Institute for Health and Care Research Three Schools' Dementia Research Programme.

Keywords
Keywords Plus
UNITED-STATESALZHEIMERS-DISEASEAFRICAN-AMERICANSSECULAR TRENDSTIME PERIODSINTERVENTIONPREVENTIONENGLAND

Incidence

22-Addition of midodrine to albumin reduces the incidence of complications of large-volume paracentesis: an RCT comparing midodrine, terlipressin, and albumin

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By Kulkarni, AV (Kulkarni, Anand V.) [1] ; Maiwall, R (Maiwall, Rakhi) [1] ; Arora, V (Arora, Vinod) [1] ; Jindal, A (Jindal, Ankur) [1] ; Thomas, S (Thomas, Sherin) [2] ; Ali, R (Ali, Rehmat) [1] ; Baweja, S (Baweja, Sukriti) [3] ; Bhardwaj, A (Bhardwaj, Ankit) [4] ; Kumar, G (Kumar, Guresh) [4] ; Sarin, SK (Sarin, Shiv Kumar) [1] (provided by Clarivate) **Source HEPATOLOGY INTERNATIONAL Volume 19 Issue 5 Page 1231-1241 DOI 10.1007/s12072-025-10841-3 Published OCT 2025 Early Access JUL 2025 Indexed 2025-07-10 Document Type Article**

Abstract

Background and aims Large-volume paracentesis (LVP), a therapeutic procedure for cirrhosis patients with refractory ascites, is associated with paracentesis-induced circulatory dysfunction (PICD). While albumin infusion is known to prevent PICD, it is unknown whether the addition of vasoconstrictors to albumin reduces complications of LVP. Methods Cirrhosis patients undergoing LVP for refractory ascites were randomized to receive albumin alone (Gr. I), terlipressin with albumin (Gr.II), or midodrine with albumin (Gr. III). The primary endpoint was the incidence of PICD, and the secondary endpoints were the incidence of new-onset complications (hyponatremia, acute kidney injury, and encephalopathy), 28-day survival and adverse events to therapy. Results One hundred and sixty-fifty cirrhosis patients with refractory ascites undergoing LVP were equally randomized to 3 groups. The incidence of PICD in Gr. I (14%), II (7%), and III (11%) was similar (p = 0.46). Mean arterial pressure (MAP) reduced in Gr.I and II compared to the rise in Gr. III on day 3 (Delta MAP: Gr.I = - 8.2 +/- 5.01; Gr.II = - 4.34 +/- 5.82; Gr. III = 9.16 +/- 5.14 mmHg; p < 0.001), with a statistically significant rise in PRA (ng/ml/hour) at day 6 in Gr. I and II than in Gr. III. The incidence of new-onset complications was significantly higher in Gr.I (52.72%) and Gr.II (45.46%) than Gr.III (23.63%) (p = 0.005). Overall mortality on day 28 was not different between the groups. Conclusions PICD remains a challenge even in hospitalized settings. The addition of oral midodrine to albumin prevents hypotensive response on day 3, thereby reducing the incidence of new-onset complications following LVP.

Keywords
Author Keywords
Refractory ascitesVasoconstrictorsPlasma renin activityCirrhosisPortal hypertensionVITAL trial

Keywords Plus
INDUCED CIRCULATORY DYSFUNCTIONHEPATORENAL-SYNDROMEEUROPEAN ASSOCIATIONCIRRHOTIC-PATIENTSRANDOMIZED-TRIALASCITESINFUSIONPREVENTIONMANAGEMENT

Incidence

23-Trends in Cancer Incidence and Mortality Rates in Early-Onset and Older-Onset Age Groups in the United States, 2010-2019

By Shiels, MS (Shiels, Meredith S.) [1] ; Haque, AT (Haque, Anika T.) [1] ; de Gonzalez, AB (de Gonzalez, Amy Berrington) [2] ; Camargo, MC (Camargo, M. Constanza) [1] ; Clarke, MA (Clarke, Megan A.) [1] ; Lynn, BCD (Lynn, Brittny C. Davis) [1] ; Engels, EA (Engels, Eric A.) [1] ; Freedman, ND (Freedman, Neal D.) [3] ; Gierach, GL (Gierach, Gretchen L.) [1] ; Hofmann, JN (Hofmann, Jonathan N.) [1] ; **(provided by Clarivate) Source CANCER DISCOVERY Volume 15 Issue 7 Page 1363-1376 DOI 10.1158/2159-8290.CD-24-1678 Published JUL 3 2025 Indexed 2025-07-10 Document Type Article**

Abstract

We estimated age-standardized cancer incidence (2010-2019) and mortality rates (2010-2022) in the United States to investigate whether cancer rates have increased at younger ages. Fourteen cancers had incidence rates that increased in at least one early-onset age group (i.e., 15-29-, 30-39-, and 40-49-year-olds)-9 of these also increased in at least one older-onset age group (i.e., 50-59, 60-69, and 70-79; i.e., female breast, colorectal, kidney, testicular, uterine and pancreatic cancers, and several lymphoid neoplasms). The largest absolute increases in 2019 compared with expected diagnoses based on 2010 rates were female breast (n = 4,834 additional cancers), colorectal (n = 2,099), kidney (n = 1,793), and uterine cancers (n = 1,209). Although there were not concomitant increases in mortality rates for most cancers, colorectal, uterine, and testicular cancer mortality rates increased in early-onset age groups. The drivers of increasing incidence rates are cancer-specific and could include a combination of established and perhaps new etiologic factors, and increased detection.Significance: In the United States, incidence rates of some cancers have increased in early-onset age groups. For many of these cancers, rates have also increased in older-age groups, suggesting that the impact of changes in risk factor prevalence and/or improvements in detection could affect risk across the age range. See related commentary by Cann and Eng, p. 1309Significance: In the United States, incidence rates of some cancers have increased in early-onset age groups. For many of these cancers, rates have also increased in older-age groups, suggesting that the impact of changes in risk factor prevalence and/or improvements in detection could affect risk across the age range. See related commentary by Cann and Eng, p. 1309

Keywords

Keywords Plus

COLORECTAL-CANCERMYELOPROLIFERATIVE NEOPLASMSRISKPREVENTIONSURVIVALYOUNGERADULTSHPV

Incidence

24-Global, regional, and national burden of inguinal, femoral, and abdominal hernias: a systematic analysis of prevalence, incidence, deaths, and DALYs with projections to 2030

By Wang, F (Wang, Fan) [1] ; Ma, BZ (Ma, Bangzhen) [2] ; Ma, QY (Ma, Qiuyue) [1] ; Liu, XL (Liu, Xiaoli) [1] (provided by Clarivate) **Source INTERNATIONAL JOURNAL OF SURGERY Volume 110 Issue 4 Page 1951-1967 DOI 10.1097/JS9.0000000000001071 Published APR 2024 Indexed 2024-05-19 Document Type Article**

Abstract

Background:Hernias, particularly inguinal, femoral, and abdominal, present a global health challenge. While the global burden of disease (GBD) study offers insights, systematic analyses of hernias remain limited. This research utilizes the GBD dataset to explore hernia implications, combining current statistics with 2030 projections and frontier analysis.Methods:We analyzed data from the 2019 GBD Study, focusing on hernia-related metrics: prevalence, incidence, deaths, and disability-adjusted life years (DALYs) across 204 countries and territories, grouped into 21 GBD regions by the socio-demographic index (SDI). Data analysis encompassed relative change calculations, as well as annual percentage change (APC) and average annual percentage change (AAPC), both of which are based on joinpoint regression analysis. The study additionally employed frontier analysis and utilized the Bayesian age-period-cohort model for predicting trends up to 2030. Analyses utilized R version 4.2.3.Results:From 1990 to 2019, the global prevalence of hernia cases surged by 36%, reaching over 32.5 million, even as age-standardized rates declined. A similar pattern was seen in mortality and DALYs, with absolute figures rising but age-standardized rates decreasing. Gender data between 1990 and 2019 showed consistent male dominance in hernia prevalence, even as rates for both genders fell. Regionally, Andean Latin America had the highest prevalence, with Central Sub-Saharan Africa and South Asia noting significant increases and decreases, respectively. Frontier analyses across 204 countries and territories linked higher SDIs with reduced hernia prevalence. Yet, some high SDI countries, like Japan and Lithuania, deviated unexpectedly. Predictions up to 2030 anticipate increasing hernia prevalence, predominantly in males, while age-standardized death rates and age-standardized DALY rates are expected to decline.Conclusions:Our analysis reveals a complex interplay between socio-demographic factors and hernia trends, emphasizing the need for targeted healthcare interventions. Despite advancements, vigilance and continuous research are essential for optimal hernia management globally.

Keywords

Author Keywords

annual percentage changeaverage annual percentage changefrontier analysisinguinalfemoralabdominal herniasthe bayesian age-period-cohort modelthe global burden of disease study

Keywords Plus

DISEASE

Incidence

25-Global type 1 diabetes prevalence, incidence, and mortality estimate 2025: Results from the International diabetes Federation Atlas, 11th Edition, and the T1D Index Version 3.0

By Ogle, GD (Ogle, Graham D.) [1] , [2] ; Wang, F (Wang, Fei) [3] ; Haynes, A (Haynes, Aveni) [1] ; Gregory, GA (Gregory, Gabriel A.) [1] ; King, TW (King, Thomas W.) [3] ; Deng, K (Deng, Kylie) [3] ; Dabelea, D (Dabelea, Dana) [4] ; James, S (James, Steven) [5] ; Jenkins, AJ (Jenkins, Alicia J.) [6] ; Li, X (Li, Xia) [7] , [8] , [9] ; **(provided by Clarivate) Source DIABETES RESEARCH AND CLINICAL PRACTICE Volume 225 DOI 10.1016/j.diabres.2025.112277 Article Number 112277 Published JUL 2025 Indexed 2025-06-09 Document Type Article**

Abstract

Aims: Globally, symptomatic type 1 diabetes (T1D) prevalence varies markedly. The International Diabetes Federation 11th Edition Atlas/T1D Index Version 3.0 estimated 2025 numbers for 202 countries/territories ("countries"), and projected to 2040. Methods: The T1D Index model, a Markov model with sub-models for incidence-over-time, adult incidence, and mortality-over-time, was updated with recent population-based T1D incidence, mortality and prevalence studies. For countries without studies, data were extrapolated from countries with similar settings. Results: There are estimated 9.5 million people living with T1D globally (compared to 8.4 million in 2021, a 13 % increase), with 1.0 million of these aged 0-14, and 0.8 million aged 15-19 years. In lower-income countries, prevalent cases increased by 20 % from 1.8 million in 2021 to 2.1 million in 2025. Incident cases in 2025 are an estimated 513,000 (164,000 aged 0-14 and 58,000 aged 15-19 years), with incidence increasing by 2.4 % in the last year. Premature deaths are estimated at 174,000, with 17.2 % of these due to non-diagnosis soon after clinical onset. The estimated remaining life expectancy of a 10-year-old child diagnosed with T1D in 2025 varies between countries from 6 to 66 years. There are still no data available for 119 countries. The projected T1D population for 2040 is estimated to be14.7 million. Conclusions: The number of global T1D cases is rising quickly, especially in lower-income settings, due to increasing diagnosed incidence, falling mortality and ageing, and population growth. Contemporary data are unavailable for over 50% of all countries, highlighting need for epidemiological studies.

Keywords
Author Keywords
Type 1 diabetesChildrenAdultsPrevalenceIncidenceMortality

Keywords Plus
CHILDRENTRENDSCARE

Incidence

26-Global type 1 diabetes prevalence, incidence, and mortality estimate 2025: Results from the International diabetes Federation Atlas, 11th Edition, and the T1D Index Version 3.0

By Ogle, GD (Ogle, Graham D.) [1] , [2] ; Wang, F (Wang, Fei) [3] ; Haynes, A (Haynes, Aveni) [1] ; Gregory, GA (Gregory, Gabriel A.) [1] ; King, TW (King, Thomas W.) [3] ; Deng, K (Deng, Kylie) [3] ; Dabelea, D (Dabelea, Dana) [4] ; James, S (James, Steven) [5] ; Jenkins, AJ (Jenkins, Alicia J.) [6] ; Li, X (Li, Xia) [7] , [8] , [9] ; (provided by Clarivate) **Source DIABETES RESEARCH AND CLINICAL PRACTICE Volume 225 DOI 10.1016/j.diabres.2025.112277 Article Number 112277 Published JUL 2025 Indexed 2025-06-09 Document Type Article**

Abstract

Aims: Globally, symptomatic type 1 diabetes (T1D) prevalence varies markedly. The International Diabetes Federation 11th Edition Atlas/T1D Index Version 3.0 estimated 2025 numbers for 202 countries/territories ("countries"), and projected to 2040. Methods: The T1D Index model, a Markov model with sub-models for incidence-over-time, adult incidence, and mortality-over-time, was updated with recent population-based T1D incidence, mortality and prevalence studies. For countries without studies, data were extrapolated from countries with similar settings. Results: There are estimated 9.5 million people living with T1D globally (compared to 8.4 million in 2021, a 13 % increase), with 1.0 million of these aged 0-14, and 0.8 million aged 15-19 years. In lower-income countries, prevalent cases increased by 20 % from 1.8 million in 2021 to 2.1 million in 2025. Incident cases in 2025 are an estimated 513,000 (164,000 aged 0-14 and 58,000 aged 15-19 years), with incidence increasing by 2.4 % in the last year. Premature deaths are estimated at 174,000, with 17.2 % of these due to non-diagnosis soon after clinical onset. The estimated remaining life expectancy of a 10-year-old child diagnosed with T1D in 2025 varies between countries from 6 to 66 years. There are still no data available for 119 countries. The projected T1D population for 2040 is estimated to be14.7 million. Conclusions: The number of global T1D cases is rising quickly, especially in lower-income settings, due to increasing diagnosed incidence, falling mortality and ageing, and population growth. Contemporary data are unavailable for over 50% of all countries, highlighting need for epidemiological studies.

Keywords
Author Keywords
Type 1 diabetesChildrenAdultsPrevalenceIncidenceMortality

Keywords Plus
CHILDRENTRENDSCARE