



## **Contribution Title Analysis and evolution of mortality and morbidity: a review of articles published during 2016–2021**

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### **Abstract**

Morbidity and mortality are two frequent epidemiological monitoring measures. These parameters indicate how a health issue develops and how severe it becomes. They're important for learning about illness risk factors and comparing health events and populations. From 2016 to 2021, 241 bibliographic records were extracted from the Scopus database and evaluated through author, journal, country, and keyword analyses. The United States, United Kingdom, Australia, France, and Canada made the most substantial contributions to the domain. Moreover, the findings revealed that during the study period, the publication of papers relating to mortality and morbidity increased, and the United States produced the largest proportion of publications and authors (22 percent of total). The researchers are interested in strongly highly loaded citation. This work also examines the most used input keywords. Accordingly, the major findings of this study will be useful for politicians, researchers, and institutions to determine future research directions and identify potential consultants to assist formulating their mortality and morbidity control policies and future mortality reduction objectives

**Keywords:** Mortality; Morbidity; Cancer; Suicide; Health.

### **1. Introduction**

Please note that the first paragraph of a section or subsection is not indented. The first paragraphs that follows a table, figure, equation etc. does not have an indent, either. Subsequent paragraphs, however, are indented We looked at suggestions from numerous scientists' scientific study in this article. Here are a few examples. The rise in mortality and morbidity has been attributed to a number of factors. They used current and historical data from the United States and Europe to look at economic, cultural, and social characteristics. During this time, significant increases in drug overdose, suicide, and alcohol-related liver death account for two major causes of middle-aged mortality: cancer and a decline in heart disease (Case and Deaton, 2017). Examined how the growth of death beliefs affects financial decisions in the home. Less likely situations can cause people's death beliefs to be disrupted, affecting their economic behavior (Heimer et al, 2019). The algorithm was

originally created to predict death in the Netherlands, but it can simply be adapted to other European countries (Antonio et al, 2017). With age, the expected mortality effect increases. The relative mortality effect, on the other hand, does not decrease in lockstep with age, implying that age is a noisy predictor of air pollution vulnerability. It has been proven that life expectancy is a strong indicator of pollution vulnerability. Those with a life expectancy of less than one year, for example, are thirty times more likely than the average beneficiary to die from pollution. Despite the high death rate, these short-term beneficiaries lose the most years of life per capita, both in absolute and relative terms (10.1 per million) (Deryugina et al, 2019). In France, there is a long history of studies on economic inequality and mortality disparities (Baron, 2016). White non-Hispanic (WNH) between the ages of 45 and 54 have a greater mortality rate than men. We see in women 36 increases per 100,000 persons between 1998 and 2015, while we see in men 9 increases (Gelman va Auerbach 2016). Contrariwise, in the twenty-first century, the drop in aging mortality has resulted in an unparalleled increase in longevity. Especially in countries with a high standard of living. People are living longer (LE) in a growing number of countries, with some reaching the age of 80 (Enroth 2020). By contrasting the mortality rates in controlled and unregulated cities, we discover that air pollution in cities has large and significant effects on overall mortality, particularly cardiovascular and respiratory mortality, in China, before, during, and after BOG08 (Beijing Olympic Games 2008) (Guojen He at al, 2015). Some studies look at mortality displacement by using pollution lags to see if mortality effects decrease as the length of time under consideration grows longer (Schlenker and Walker 2016), or by averaging pollution fluctuations over longer time periods.

## 2. Methodology

From 2016 to 2021, 241 papers were obtained and examined from the Scopus database, using the keywords mortality and morbidity as keywords. Almost 138 articles were published between 2016 and 2018, with the remaining articles published between 2019 and 2021. (103 articles). The papers were then sorted by year of publication in the next stage. The year of publication, author's name, country, journal name, relevant impact factor (IF), highly citation included parameters were then entered into a database for all reviewed publications. There are three tables with distinct associations, such as journals that publish studies on mortality and morbidity from 2016 to 2021, nations utilized in mortality and morbidity assessment, and scientists that use mortality and morbidity assessment. We were able to investigate the history of mortality and morbidity because to the database's structure. In terms of the quantity of articles published, they may be compared, and patterns can be identified for each journal and country.

## 3. inserting content elements

Table 1: Journals publishing mortality and morbidity papers during the period 2016–2021

Journal	Number	Journal	Number
Insurance: Mathematics and Economics	31	Economic Inquiry	1
Scandinavian Actuarial Journal	19	Economic Development and Cultural Change	1

ASTIN Bulletin	16	Economic Systems Research	1
North American Actuarial Journal	15	Economic Record	1
World Development	12	Engineering Economist	1
Economic History Review	9	Empirical Economics	1
Journal of Risk and Insurance	8	Ekonomicheskaya Politika	1
Journal of Environmental Economics and Management	7	Environment, Development and Sustainability	1
European Actuarial Journal	6	Fiscal Studies	1
Economic Journal	6	Feminist Economics	1
Applied Economics	6	International Economic Review	1
Journal of Development Economics	5	Journal of Benefit-Cost Analysis	1
Journal of Population Economics	5	Investigaciones de Historia Economica	1
Journal of Public Economics	5	Journal of Applied Econometrics	1
Journal of Political Econom		Journal of Consumer Research	1
Explorations in Economic History	3	Journal of Business and Economic Statistics	1
		Journal of Derivatives	1
Journal of the Royal Statistical Society. Series A: Statistics in Society	3	Journal of Econometrics	1
American Economic Review	3	Journal of Economic Perspectives	1
Annals of Actuarial Science	3	Journal of Economic Behavior and Organization	1
Journal of Economic History	3	Journal of International Economics	1
Journal of Finance	3	Journal of Family and Economic Issues	1
Journal of Policy Modeling	3	Journal of Law and Economics	1
Marine Policy	3	Journal of Labor Economics	1
Review of Economics of the Household	3	Journal of Pension Economics and Finance	1
Applied Health Economics and Health Policy	2	Journal of Quantitative Economics	1

Journal of Mathematical Economics	2	Journal of Urban Economics	1
International Journal of Social Economics	2	Journal of the Association of Environmental and Resource Economists	1
Journal of Risk and Uncertainty	2	Journal of the Knowledge Economy	1
British Actuarial Journal	1	Labour Economics	1
Brookings Papers on Economic Activity	1	Mathematical Finance	1
Canadian Journal of Economics	1	Macroeconomic Dynamics	1
Cogent Economics and Finance	1	Quarterly Journal of Economics	1
Cliometrica	1	Peace Economics, Peace Science and Public Policy	1
Consumption Markets and Culture	1	Review of Economic Dynamics	1
Developing Economies	1		

Scopus have identified 84 international journals from 241 papers assessed between 2016 and 2021 (Table 1): Most of the Mortality and Morbidity Index articles are about Insurance: Mathematics and Economics, Scandinavian Actuarial, ASTIN Bulletin, North American Actuarial and World Development, among others. Between 2016 and 2021, these five journals published 28 percent of all scientific and disease-related articles.

Table 2: The most influential authors and source based on citation analysis

Rank	Citation	Authors	Title
1	125	He, G.	The effect of air pollution on mortality in China: Evidence from the 2008 Beijing Olympic Games
2	105	Barreca, A.	Adapting to climate change: The remarkable decline in the US temperature-mortality relationship over the Twentieth Century
3	103	Golinelli, D.	Health Expenditure and All-Cause Mortality in the ‘Galaxy’ of Italian Regional Healthcare Systems: A 15-Year Panel Data Analysis
4	95	Pugatch, T.	Tropical storms and mortality under climate change
5	69	Peimbert-Garcia, R.E.	Cost of quality modeling for maintenance employing opportunity and infant mortality costs: An analysis of an electric utility
6	66	Deryugina, T.	The mortality and medical costs of air pollution: Evidence from changes in wind direction

7	63	Davies, K.T.A.	Mass human-caused mortality spurs federal action to protect endangered North Atlantic right whales in Canada
8	62	Koijen, R.S.J.	Health and Mortality Delta: Assessing the Welfare Cost of Household Insurance Choice
9	57	Case, A.	Mortality and morbidity in the 21st century
10	56	Elder, T.E.	Racial and ethnic infant mortality gaps and the role of socio-economic status

Table 3 present the influential source (i.e journals) based on citations. Journal of Political Economy (n = 283) was the most influential journal, followed by World Development (n = 148), Insurance: Mathematics and Economics (n = 124), Applied Health Economics and Health Policy (n = 103) and ASTIN Bulletin (n = 97)

Table 3: The most influential countries and source based on citation analysis

Rank	Journal	Country	Citations
1	Journal of Political Economy	United States	283
2	World Developmen	United States	148
3	Insurance: Mathematics and Economics	Australia	124
4	Applied Health Economics and Health Policy	Italy	103
5	ASTIN Bulletin	Australia	97

From a total of 241 papers on mortality and morbidity published between 2016 and 2021 (Figure 1), 42 articles were published in 2016, 58 pieces in 2017, 38 articles in 2018, 45 articles in 2019 and 31 articles in 2020. 27 articles were published in 2021. The findings revealed that the number of articles published in foreign journals grew in 2017, followed by a modest decline.



Figure 1: Number of articles with mortality and morbidity theme arranged by the year of publication. (The number of articles on mortality and morbidity is explained by the year they were published)

According to the authors' study of 241 articles on mortality and morbidity, these manuscripts were written by 495 authors. Only 17.26 percent of articles were written by a single author, and 82.74 percent were co-authored by two or more authors. From 2016 to 2021, each author averaged 0.49 articles. Only 4 authors (0.8 percent) published more than 4 articles, of which 89.49 percent had one, 6.26 percent had two, and 3.44 percent had more than three articles. According to the figures mentioned above, Kleinow.T, Li.H, Lu.Y and Tsai.C.C.-L. respectively produced a total of 6 articles. From 2016 to 2021, these authors were found to have published the most publications. (Fig2).

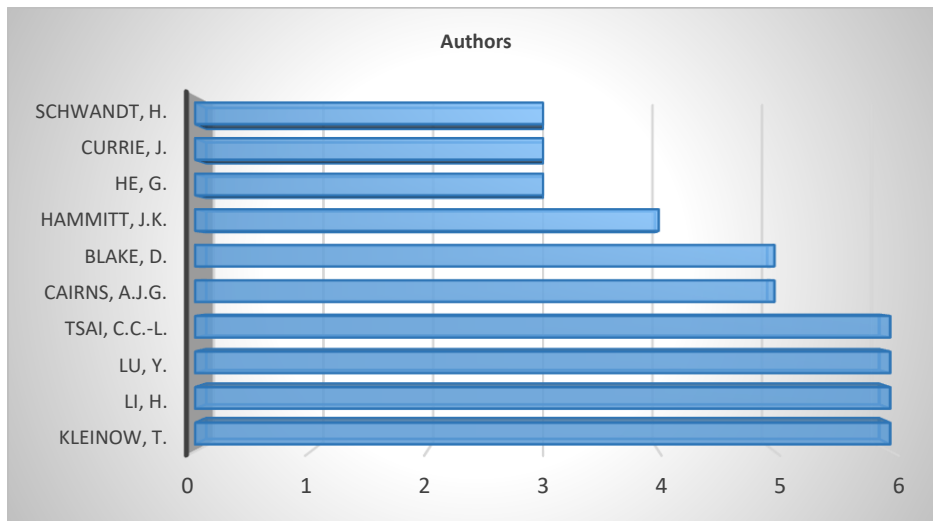


Figure 2: Authors of mortality and morbidity articles for the period 2016–2021.

Between 2016 and 2021, 495 authors from 44 countries produced a total of 241 publications. The United States was the most powerful and influential country, followed by the United Kingdom, Australia, Canada, France, Germany, Italy, Belgium, and China. The number of publications by linked writers was very low in the United States (21.64 percent), the United Kingdom (13.74 percent), Australia (9.06 percent), Canada (7.31 percent), France (7.02 percent), Germany (4.97 percent), Italy (4.68 percent), Belgium (3.8 percent), and China (3.22 percent). Figure 3 depicts the trend of death and morbidity papers published by nation of origin.

The United States has contributed more to this constant growth, and the majority of the articles we view are from the United States

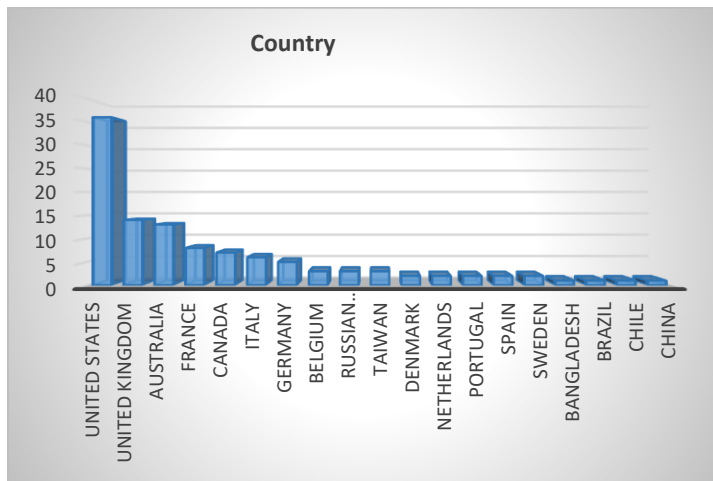


Figure 3: Countries that contribute to the publication of death articles (period 2016–2021)

Table 2 lists the most influential authors based on citations recorded by the Scopus database. The most influential author was He. G. 125 citations, followed Barreca, A. (n = 105), Golinelli, D (n = 103), Pugatch, T (n = 95), Peimbert-Garcia, R.E. (n = 69), Deryugina, T (n=66), Davies, K.T.A (n=63), Koijen, R.S.J (n=62), Case, A. (n=57) and Elder, T.E. (n=56).

#### 4. Conclusion

Several studies have looked at the long-term impacts of boosting children's access to public health insurance. (Brown et al, 2015; Cohodes et al, 2014; Currie et al, 2008; Miller and Wherry 2014; Wherry and Meyer 2015; Wherry et al, 2015 ). The most relevant for this study is Wherry and Meyer (2015), who show that infant mortality is somewhat lower in cohorts suitable for Medicaid extensions than in cohorts slightly bigger, and that this effect is stronger in demographic groups with the highest rate of compliance. Many more policies in the United States, according to Aizer and Currie (2014), are necessary to protect the health of young children, including measures to reduce domestic violence and improve nutrition. Currie and Schwandt (2016a, 2016b) contend, like Preston and Wang (2006), that cohort-level smoking trends may be to blame for part of the rising inequality as people get older. When the risks of smoking became generally acknowledged in the United States, people of higher socioeconomic status quit smoking far sooner than people of lower socioeconomic rank. To sum up, the findings of this paper suggest that policymakers should not dismiss the link between income and health as a given. In an ideal world, government policy would eliminate poverty (Currie et al, 2019).

The United States has contributed more to this constant growth, and the majority of the articles we view are from the United States. Eight journals published 47.35 percent of the publications examined (107 articles): Insurance: Mathematics and Economics, Scandinavian Actuarial Journal, ASTIN Bulletin, North American Actuarial Journal, World Development, Economic History Review, Journal of Risk and Insurance and European Actuarial Journal

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