

# Themes of Research on Climate Changes and Elderly Health Based on Articles Indexed in Web of Science Database

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## ABSTRACT

**Introduction:** Climate change is an environmental challenge on a global scale. It has the potential to create significant droughts, increase weather-related disasters, sea levels, lack of water and food, and increase the incidence of diseases. These changes cause allergic, immunological, infectious, cardiovascular, kidney, and malnutrition diseases. The elderly population is more vulnerable to climate changes such as cold and heat due to reduced mobility and physiological changes. So, climate change and the rapid aging of the global population create challenges for societies and public policies. Considering that the population of people over 60 will reach 1.4 billion by 2030, the importance of research on climate change and its various aspects is increasing. So, many studies have been conducted in this field. Scientometric methods can be used to investigate these studies. Therefore, we tried to identify the essential and motor themes of the studies conducted on climate change related to older adults.

**Methods and Materials:** In this original study, we searched for the studies that focus on "climate changes," "aged," "global environmental," "environmental biomarkers" change, and "health" in the Web of Science database. Thirteen thousand five hundred seventy-four articles were retrieved. The analysis of these results was done using the Biblioshiny software.

**Results:** The retrieved articles were published in 3,772 sources by 68,393 authors, with an average of 30.99 citations per article. Their average age 2 years and t, their annual growth rate is 0.88%. The data were analyzed by Biblioshiny software and showed that before 2012, mortality was one of the main topics, but after that, it was replaced by "oxidative stress." Between 2013-2017, "health" and "age" were among the fundamental concepts.

**Conclusion and Discussion:** The results showed that, contrary to the long history of research in this field, the average age of articles is 7.32 years, which indicates the increasing importance of studying in this field, especially in recent years. Also, the basic themes in the past years include air pollution, physical activity, obesity, and stress, which have shifted to the motor themes of physical activity, stress, and mental health in recent years. Mortality, air pollution, and temperature were no longer of primary interest, and oxidative stress and biomarkers have become neutral themes with increasing publications.

Keywords: Aged, Climate change, Environmental biomarkers health