



International Journal of Innovative Technologies in Social Science

e-ISSN: 2544-9435

Scholarly Publisher
RS Global Sp. z O.O.
ISNI: 0000 0004 8495 2390

Dolna 17, Warsaw,
Poland 00-773
+48 226 0 227 03
editorial_office@rsglobal.pl

ARTICLE TITLE THE IMPACT OF ORAL HEALTH ON HUMAN SECURITY

ARTICLE INFO

Bulgan Battengel, Urjin Odkhuu, Delgertsetseg Jargaltsogt. (2025) The Impact of Oral Health on Human Security. *International Journal of Innovative Technologies in Social Science*. 1(45). doi: 10.31435/ijitss.1(45).2025.3181

DOI

[https://doi.org/10.31435/ijitss.1\(45\).2025.3181](https://doi.org/10.31435/ijitss.1(45).2025.3181)

RECEIVED

12 January 2024

ACCEPTED

23 March 2025

PUBLISHED

28 March 2025

LICENSE



The article is licensed under a **Creative Commons Attribution 4.0 International License**.

© The author(s) 2025.

This article is published as open access under the Creative Commons Attribution 4.0 International License (CC BY 4.0), allowing the author to retain copyright. The CC BY 4.0 License permits the content to be copied, adapted, displayed, distributed, republished, or reused for any purpose, including adaptation and commercial use, as long as proper attribution is provided.

THE IMPACT OF ORAL HEALTH ON HUMAN SECURITY

Bulgan Battengel

First Lieutenant, Ph.D., Candidate, National Defense University, Mongolia

Urjin Odkhuu

Sc.D., Professor, National Defense University, Mongolia

Delgertsetseg Jargaltsogt

Ph.D., National University of Medical Sciences, Mongolia

ABSTRACT

To comply with the guidelines outlined in Article 3.4.1.1 of Mongolia's National Security Concept, which emphasizes "Human Security" and the promotion of public health, healthy lifestyles, and public health education, as well as Article 3.4.1.3, which focuses on proper nutrition, prevention of non-communicable diseases, and addressing micronutrient deficiencies, Mongolia has implemented two national programs aimed at oral health protection: the "Oral Health" program from 1999-2005 and 2006-2015, and the "Healthy Teeth - Healthy Children" program from 2019-2023.

The World Health Organization (WHO) defines oral health as the overall well-being of the mouth, teeth, and gums, enabling individuals to perform essential functions like eating, breathing, and speaking. It also encompasses psychosocial aspects such as self-confidence and overall psychological well-being. Oral health is essential across all stages of life, from childhood to old age, and plays a crucial role in overall health, enabling individuals to fully engage in society and reach their potential.

Oral diseases are largely preventable but pose a significant health burden in many countries, leading to illness, discomfort, and even mortality. These diseases share modifiable risk factors with other non-communicable diseases (NCDs), including sugar consumption, tobacco use, alcohol consumption, and poor hygiene, influenced by social and commercial factors.

Common oral diseases include dental caries, periodontal disease, oral cancer, oral trauma, and cleft lip and palate, affecting approximately 3.5 billion people worldwide regardless of age or gender. Addressing oral hygiene at a systemic level is crucial, with developing countries facing higher prevalence due to factors like low household income, lack of oral hygiene knowledge, and inadequate national policies for prevention.

Socio-economic disparities in oral health are pronounced among disadvantaged populations. The 2017 Mongolian National Oral Health Survey revealed high prevalence and severity of dental caries across different age groups, highlighting the need for comprehensive research in this area.

Tooth decay can lead to infections in other organs, such as tonsillitis, cardiovascular disease, joint disease, kidney disease, diabetes, and allergies. It is considered both a lifestyle-related disease influenced by dental care and nutrition, as well as an infectious source that can be transmitted from an infected individual to a healthy person.

KEYWORDS

Oral Health, Human Security, Global Food, Oral Disease, Oral Hygiene

CITATION

Bulgan Battengel, Urjin Odkhuu, Delgertsetseg Jargaltsogt. (2025) The Impact of Oral Health on Human Security. *International Journal of Innovative Technologies in Social Science*. 1(45). doi: 10.31435/ijitss.1(45).2025.3181

COPYRIGHT

© **The author(s) 2025**. This article is published as open access under the **Creative Commons Attribution 4.0 International License (CC BY 4.0)**, allowing the author to retain copyright. The CC BY 4.0 License permits the content to be copied, adapted, displayed, distributed, republished, or reused for any purpose, including adaptation and commercial use, as long as proper attribution is provided.

Introduction.

The basis of ensuring human security for a Mongolian shall be creating healthy and safe living conditions and environment, ensuring food security, guaranteeing secure residence and protecting them from becoming a victim of crime or assault.

3.4.1.1. Support development of public health sector and carry out activities directed to encourage and inculcate a sense of leading a healthy life and increasing health education to citizens at all levels of educational establishments through mass media.

3.4.1.6. Take measures for early detection, diagnosis and treatment of cancer and other prevalent non-contagious diseases and for decreasing ailments caused by accidents or occupation and to increase the longevity of the population.¹

In May 2021, the World Health Assembly passed resolution WHA74.5, acknowledging the need to integrate oral health into the non-communicable disease (NCD) agenda and oral health care interventions due to the lack of attention to oral disease. The Global Oral Health Report by the World Health Organization advocates for universal oral health coverage by 2030.

Oral health, as defined by the World Health Organization, encompasses the well-being of the mouth, teeth, and oral cavity, allowing individuals to engage in essential functions like eating, breathing, and speaking. It also plays a crucial role in psychosocial aspects such as self-esteem, emotional well-being, and the absence of discomfort. Oral health is a key component of overall health that evolves throughout a person's life, from childhood through to old age, facilitating participation in society and the realization of one's full capabilities.²

Among oral diseases, permanent tooth decay is the most prevalent, with approximately 2 billion cases, followed by severe tooth decay with around 1 billion cases, deciduous tooth decay with about 510 million cases, and dental caries with 350 million cases.³ The total number of oral diseases globally exceeds the combined total of the five major non-communicable diseases (psychiatric disorders, cardiovascular diseases, diabetes, chronic respiratory diseases, and cancer) by about 1 billion.

This study suggests that oral health issues can present significant threats and risks to health safety, food safety, and economic security.

Four national programs are currently being carried out in Mongolia. These include:

✓ The "Oral Health" national program, established in 1999 by Resolution No.66 of the Mongolian Government;

✓ The renewal and continuation of the "Oral Health" national program from 2006 to 2015;

✓ The "Healthy teeth - healthy child" national program;

✓ Ongoing implementation of measures under the "Healthy teeth" program.

Evariste Kouassi-Komlan, the Resident Representative of the United Nations Children's Fund, stressed the importance and timeliness of the "Healthy Teeth" event in his opening remarks. He highlighted that the issue of oral hygiene among Mongolian children requires immediate attention, as the prevalence of tooth decay has not decreased by 85% over the past 40 years. Factors contributing to this include insufficient knowledge among parents and guardians about oral health, children not developing proper dental care habits, the absence of an environment that promotes healthy behavior, high consumption of sugary foods, and the lack of regular dental check-ups as the primary cause of tooth decay.⁴

Oral health is closely connected to overall health, with negative effects and illnesses affecting other parts of the body. Research has shown a connection between periodontal disease and diabetes, with treatments for the disease leading to improvements in diabetes. There is also evidence linking periodontal disease to cardiovascular disease, as well as to a lesser extent, cerebrovascular disease and chronic obstructive pulmonary disease. In addition to serious dental issues, tooth decay and tooth loss have been linked to cognitive decline, certain cancers, gastrointestinal problems, and pneumonia. These connections are supported by shared biological factors such as infection, inflammation, microbiome, and immune response, as well as behavioral and broader social risk factors.

¹ National security concept of Mongolia. Available at: <https://legalinfo.mn/mn/detail?lawId=208070&showType=1>

² A75/10 Add.1. Draft global strategy on oral health. In: Seventy-fifth World Health Assembly, Geneva, 22–28 May 2022. Provisional agenda item 14.1. Geneva: World Health Organization; 2022. Available at:

https://apps.who.int/gb/ebwha/pdf_files/WHA75/A75_10Add1-en.pdf (Accessed on 14 November 2022)

³ Global burden of disease 2019 (GBD 2019) results [online database]. Seattle: Institute of Health Metrics and Evaluation (IHME); 2020. Available at: <https://vizhub.healthdata.org/gbd-results/> (Accessed on 14 November 2022).

⁴ Ministry of Health. Available at: <https://moh.gov.mn/news/6940>

According to the 5th national nutrition survey, it is common for school children aged 6-11 to consume carbonated drinks and sweet tea, with 81 percent of all children having unhealthy drinks at least once a week. Sweet foods like cakes, cookies, pastries, and fried snacks such as chips and crisps are also popular among school children, with 99 percent consuming these items at least once a week. The study found that 1 in 4 elementary school students is overweight or obese, and 1 in 8 children under 5 years old falls into this category.¹ Additionally, the average 6-year-old child has 6.2 cavities,² which can negatively impact their growth and health. 3.4.2.1. Therefore, it is important to ensure food safety by guaranteeing food supply and providing consistent, accessible food products to the population. The Law "On Food Production and Service in General Education Schools," which was approved on May 30, 2019, became effective on September 1, 2020.³ The list of food products prohibited for sale in the school environment includes 20 types of food. The term "school environment" refers to school buildings, boarding houses, and the land owned by the school within 150 meters of the property boundaries, as defined in Article 33.1.1 of the Land Law. While the prohibition on the sale of these food products in the school environment is specified, enforcement measures have not been implemented.

The global food and beverage industry, including producers of high-sugar foods and sugar-sweetened beverages (SSBs), has implemented a similar approach by advocating for health taxes to governments and populations in order to influence public health policies related to sugar and SSBs. Restrictions on retail sales and advertising aimed at children are having adverse effects. These industries are seeking to cultivate a socially responsible image by collaborating with public health, education, and other sectors, such as sponsoring school activities and sports events. Some also engage with health and oral health research and professional organizations, potentially distorting scientific and public communication. Through sophisticated marketing, advertising, and sales strategies, these industries shape consumer behavior and strive to create an environment where their products are easily accessible, affordable, and appealing to all, posing a significant and grave threat to public oral health.⁴

Disparities in oral health costs exist not only on a global scale but also within regions and countries. Due to the prevalence of oral diseases worldwide, differences in access to and emphasis on oral health care are substantial. However, the amount spent by a nation does not always reflect its oral health status. Furthermore, there are considerable obstacles in obtaining, covering, ensuring quality, and comparing economic data at national, regional, and global levels.⁵

The economic impact of treating oral diseases is a major burden on families and healthcare systems. Oral disease is a worldwide health issue, especially in low- and middle-income countries where its prevalence is rising due to societal, economic, and commercial shifts. By outlining the scope and repercussions of oral diseases, their social and economic causes, and the lack of focus on global health policy, it underscores the critical importance of addressing oral diseases alongside other non-communicable diseases as a top global health priority.⁶

Conclusions.

This suggests that enhancing oral health is not just a personal issue, but has implications for the economy, quality of life, social stability, and overall public health and safety.

Based on theoretical and practical research on human security and the impact of hygiene and oral hygiene, an analysis was conducted on the current state of the impact of oral hygiene on human security, identifying ways to mitigate the negative effects.

1. The study utilized a systems approach based on systematicity, interrelationship, and interdependence principles, focusing on the determining factors of security research methodology.

2. Human security encompasses health security (freedom from disease), economic security (freedom from poverty), food security (freedom from hunger), environmental security (freedom from lack of clean water

¹ Nutritional problems of the population of Mongolia. National Survey Report V. Available at: https://www.unicef.org/mongolia/media/1121/file/NNS_V_Sedevchilsen_tailan_MN.pdf

² "Healthy teeth" action plan. . Available at: <https://moh.gov.mn/uploads/files/6e510e9332047f5aaad88a0cd7c918ff050e25a5.pdf>

³ HC Order No. 207 of 2013

⁴ Kearns CE, Watt RG. Transnational corporations and oral health: examples from the sugar industry. *Community Dent Health*. 2019; 36 (2):157–62. doi:10.1922/CDH_SpecialIssueKearns06.

⁵ El-Yousfi S, Jones K, White S, Marshman Z. A rapid review of barriers to oral healthcare for vulnerable people. *Br Dent J*. 2019; 227 (2):143–51. doi:0.1038/s41415-019-0529-7.

⁶ Marco A Perez, Lorna M D Macpherson. Oral diseases: a global public health challenge. Available at: <https://pubmed.ncbi.nlm.nih.gov/31327369/#>

and air), personal security (freedom from crime, drugs, and violence), public security (right to participate in family and ethnic group life), and political security (freedom to enjoy fundamental human rights).

3. The health security subsystem includes the hygiene subsystem, which aims to protect public health, study environmental impacts on individuals, and regulate work and rest.

4. Research limitations revealed over 280 diseases in the human oral cavity, such as dental caries, diabetes, cardiovascular disease, arthritis, premature birth, respiratory diseases, colon cancer, inflammatory bowel disease, and Alzheimer's disease.

5. International efforts focus on developing national policies aligned with the World Health Organization's goal of improving oral health by 2030. China's "Healthy China 2030" Plan recognizes oral health as integral to overall health, while Japan addresses dental caries prevention through legislation like the Maternal and Child Health Act, School Health and Safety Act, and Health Promotion Act.

Opportunities to minimize the negative impact of oral hygiene on human safety:

1. Proposed Methodology for Enhancing Oral Hygiene in National Health Policies and Programs:

• A methodology is suggested for developing a sustainable health safety policy, action plan, and program strategy based on risk assessment of oral hygiene policies and activities to safeguard human safety. This involves:

Firstly, assessing the current status of health policies, including oral hygiene, strategies, and programs.

Secondly, evaluating past accomplishments and shortcomings of health policies, including oral hygiene, to identify causes and consequences leading to current deficiencies and assessing risks posed by hygiene, particularly oral hygiene, to human safety.

Thirdly, determining future sustainable policies, strategies, and programs for risk reduction management based on the risk assessment of human health/oral hygiene safety, drawing on the findings from the previous stages of research and analysis.

2. This methodology offers an opportunity to develop sustainable policies, operational strategies, and program planning for hygiene, specifically oral hygiene, based on risk assessment considering the current reality, historical context, and future perspectives, and encompasses the following comprehensive approach:

• Aligning with the National Security Law's provision that "The concept of national security shall serve as the foundation for the unity and continuity of state policy on national security" to ensure human safety and health protection.

• Adhering to principles of state-civil cooperation, knowledge-based practices, and practical approaches in hygiene policies and activities, including oral hygiene, under the national health policy framework, to establish essential conditions for sustainable health development, including hygiene, to ensure human security.

REFERENCES

1. National security concept of Mongolia. Available at: <https://legalinfo.mn/mn/detail?lawId=208070&showType=1>
2. A75/10 Add.1. Draft global strategy on oral health. In: Seventy-fifth World Health Assembly, Geneva, 22–28 May 2022. Provisional agenda item 14.1. Geneva: World Health Organization; 2022. Available at: https://apps.who.int/gb/ebwha/pdf_files/WHA75/A75_10Add1-en.pdf (Accessed on 14 November 2022)
3. Global burden of disease 2019 (GBD 2019) results [online database]. Seattle: Institute of Health Metrics and Evaluation (IHME); 2020. Available at: <https://vizhub.healthdata.org/gbd-results/> (Accessed on 14 November 2022).
4. Ministry of Health. Available at: <https://moh.gov.mn/news/6940>
5. Nutritional problems of the population of Mongolia. National Survey Report V. Available at: https://www.unicef.org/mongolia/media/1121/file/NNS_V_Sedevchilsen_tailan_MN.pdf
6. "Healthy teeth" action plan. Available at: <https://moh.gov.mn/uploads/files/6e510e9332047f5aaad88a0cd7c918ff050e25a5.pdf>
7. HC Order No. 207 of 2013
8. Kearns CE, Watt RG. Transnational corporations and oral health: examples from the sugar industry. *Community Dent Health*. 2019; 36 (2):157–62. doi:10.1922/CDH_SpecialIssueKearns06.
9. El-Yousfi S, Jones K, White S, Marshman Z. A rapid review of barriers to oral healthcare for vulnerable people. *Br Dent J*. 2019; 227 (2):143–51. doi:0.1038/s41415-019-0529-7.
10. Marco A Perez, Lorna M D Macpherson. Oral diseases: a global public health challenge. Available at: <https://pubmed.ncbi.nlm.nih.gov/31327369/#>
11. Simmi Oberoi, Neha Chaudhary, Siriesha Patnalk, and Amarjit Singh, Understanding health seeking behavior, *Family Medicine and Primary Care*. 2016 Apr-Jun; 5(2).pp.463-464

12. Constitution of the World Health Organization. /Retrieved 2022.06.10/
<https://www.who.int/about/governance/constitution>.
13. Global health security. Epidemic alert and response. FIFTY-FOURTH WORLD HEALTH ASSEMBLY. 21 May 2001. (Retrieved 2022.06.10) https://apps.who.int/gb/archive/pdf_files/WHA54/ea54r146pdf.
14. The 2021 Global Multidimensional Poverty index (MPI). (Retrieved 2022.06.10) <https://www.hdr.undp.org/en/2021-MPI>.
15. Bradley Christian, Ajesh George Strategies to integrate oral health into primary care: a systematic review. BMJ Open. 2023 Jul 5;13(7):e070622. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10367016/#R1>