



## PUBLIC AWARENESS AND MITIGATION STRATEGIES FOR RADON EXPOSURE IN TASHKENT

Ganiyev N., Rakhimov B.

### Introduction

Radon, a colorless and odorless radioactive gas, poses a significant health risk due to its strong correlation with lung cancer, especially among non-smokers. As a naturally occurring gas formed from the decay of uranium in soil and rock, radon can seep into buildings through cracks and gaps in foundations. Despite its hazardous nature, public awareness of radon exposure remains remarkably low in Uzbekistan, particularly in Tashkent. Many residents are either unaware of the potential dangers posed by radon or lack adequate knowledge on how to detect and mitigate its presence in their homes. Consequently, the absence of awareness contributes to heightened health risks, as preventive measures are seldom implemented. This thesis aims to bridge the knowledge gap by systematically assessing public awareness of radon exposure in Tashkent. Additionally, it seeks to develop practical strategies to enhance public understanding and encourage mitigation efforts. By examining existing awareness levels and identifying key challenges, the study will contribute to the development of comprehensive public health initiatives to reduce radon-related risks.

### Main Part

The research will employ a mixed-method approach, combining quantitative and qualitative data collection techniques. Surveys and structured interviews will be conducted in various residential areas of Tashkent to evaluate the level of public awareness regarding radon exposure. The survey will cover critical aspects, including the residents' knowledge of radon risks, the frequency of home testing, and the adoption of ventilation or mitigation techniques. Additionally, participants will be asked about their familiarity with existing public health campaigns and information sources related to radon exposure.

The study will also involve a thorough analysis of current public health policies and campaigns to assess their effectiveness and identify any gaps that hinder effective communication. Comparative data from successful international public awareness initiatives will be incorporated to benchmark Uzbekistan's efforts against global best practices. This comparison will provide valuable insights into developing tailored communication strategies that resonate with local communities. One of the key components of the study will be proposing targeted educational programs designed to inform the public about radon risks and promote preventive actions. These programs will aim to empower residents to test their homes regularly and implement basic mitigation measures, such as improving ventilation or sealing foundation cracks. In addition, collaboration with healthcare providers and local

authorities will be explored to ensure widespread dissemination of reliable information and encourage community engagement.

### Conclusion

Increasing public awareness and implementing effective mitigation strategies are essential to reducing health risks associated with radon exposure. This thesis will not only assess the current state of public knowledge in Tashkent but also propose practical interventions to enhance awareness and encourage safety practices. By fostering greater understanding and proactive measures, the study aims to protect public health and reduce the long-term burden of radon-induced illnesses.

### References

1. Jalolov, N. N., Imamova, A. O., & Sul'tonov, E. Y. (2023). Proper nutrition of athletes, martial arts.
2. Jalolov, N. N., Mukhammadzokirov, S. S., Mirsagatova, M. R., & Sul'tonov, E. Y. (2023). Yumshoq toqimalar va suyaklarning xavfli osmalarida MR-tomografiya yordamida radiologic diagnostikaning multimodal nur tekshirish usullari samaradorligini baholashni dasturlash.
3. Jalolov, N. N., Sul'tonov, E. Y., Imamova, A. O., & Oblokulov, A. G. (2023). Main factors of overweight and obesity in children. *Science Promotion*, 1(2), 2-4.
4. Kobiljonova, S. R., Jalolov, N. N., Sharipova, S. A., & Mirsagatova, M. R. (2022). COMBINED SKIN AND RESPIRATORY MANIFESTATIONS OF FOOD ALLERGY IN CHILDREN
5. Rahimov, B. B., Salomova, F. I., Jalolov, N. N., Sul'tonov, E. Y., & Oblokulov, A. G. (2023). O'ZBEKISTON RESPUBLIKASI NAVOIY SHAHRI HAVO SIFATINI BAHOLASH: MUAMMOLAR VA YECHIM YOLLARI
6. Sadullayeva, X. A., Salomova, F. I., & Sul'tonov, E. Y. (2023). OCHIQ SUV HAVZALARI MUHOFAZALASH OB'EKTI SIFATIDA. In *V MEЖДУНАРОДНАЯ НАУЧНО-ПРАКТИЧЕСКАЯ КОНФЕРЕНЦИЯ «СОВРЕМЕННЫЕ ДОСТИЖЕНИЯ И ПЕРСПЕКТИВЫ РАЗВИТИЯ ОХРАНЫ ЗДОРОВЬЯ НАСЕЛЕНИЯ»*.
7. Salomova, F. I., Rakhimov, B. B., Jalolov, N. N., Sul'tonov, E. Y., & Oblakulov, A. G. (2023). Atmospheric air of the city of Navoi: quality assessment. *British Journal of Global Ecology and Sustainable Development*, 15, 121-125
8. Shaykhova G. I., Rakhimov B. B. Promotion of the principles of rational nutrition in obesity // *Medical Journal of Uzbekistan*. –2014. –No. 2. -138.
9. Sul'tonov, E. Y., Sariullayeva, X. A., Salomova, F. I., & Mirsagatova, M. R. (2023). Ochiq suv havzalari suv namunalari tahlili. *Здоровый образ жизни международная научно-практическая конференция*.
10. Mirsagatova, M. P., & Sul'tonov, E. E. (2023). Особенности микрофлоры желудочно-кишечного тракта при хронических воспалительных заболеваниях верхних органов пищеварения у детей. *Мир науки: журнал современных методологий исследований*, 2(2), 93-98.
11. Рахимов, Б. Б., Саломова, Ф. И., Жалолов, Н. Н., Султонов, Э. Ю., & Облакулов, А. Г. (2023). Оценка качества атмосферного воздуха в городе навои,

республика Узбекистан: проблемы и решения. Сборник трудов по материалам Международной научно-практической конференции.

12. Садуллаева Х.А., Саломова Ф.И., Мирсагатова М.Р. и Кобилжонова С.Р. (2023). Проблемы загрязнения водоемов в условиях Узбекистана.

13. Саломова, Ф. И., Рахимов, Б. Б., Султонов, Э. Й., & Облакулов, А. Г. (2023). Навоий шаҳри атмосфера ҳавоси сифатини баҳолаш.

14. Самигова Н.Р., Мирсагатова М.Р., Баракаев Ф.И. Изучение динамики изменений в функциональном состоянии сердечно-сосудистой системы рабочих мебельного производства // Молодой ученый. - 2017. - Т. 184, № 50. - С. 126-129.

15. Шайхова Г.И., Рахимов Б.Б. Гигиеническое обоснование рационов питания при ожирении: Метод. рекомендации. - Ташкент, 2016. - С.8-Ю.

16. Шайхова Г.И., Рахимов Б.Б. Пропаганда принципов рационального питания при ожирении И Медицинский журнал Узбекистана. Ташкент. 2014. №2. С.138-141.

17. Rihsitillaevna, M. M., Rustamovna, K. S., & Nodir o'g'li, J. N. (2023). CONSEQUENCES OF HYGIENIC POLLUTION FACTORS. *Spectrum Journal of Innovation, Reforms and Development*, 14, 38-42.

18. Жалолов, Н. Н., Нуриддинова, З. И., Кобилжонова, Ш. Р., & Имамова, А. О. (2022). *Главные факторы развития избыточного веса и ожирения у детей* (Doctoral dissertation, Doctoral dissertation, O 'zbekiston Respublikasi Sog 'liqni Saqlash vazirligi, Toshkent tibbiyot akademiyasi, Koryo universiteti "Atrof muhit muhofazasining dolzarb muammolari va inson salomatligi" xalqaro ishtirok bilan Respublika 9-ilmiy-amaliy anjumani materiallari to 'plami 153 bet).

19. Зокирхўжаев, Ш. Я., Рустамова, М. Т., Паттахова, М. Х., Жалолов, Н. Н., & Муталов, С. Б. (2023). Сурункали жигар касалликларида соғлом овқатланишнинг аҳамияти.

20. Зокирходжаев, Ш. Я., Жалолов, Н. Н., Ибрагимова, М. М., & Махмудова, И. А. (2019). Сурункали гепатитлар парҳезтерапиясида маҳаллий дуккакли маҳсулотларни қўллаш.

21. Зокирхўжаев, Ш. Я., Рустамова, М. Т., Паттахова, М. Х., Нарзиев, Н. М., Жалолов, Н. Н., & Муталов, С. Б. (2023). Коронавирус инфекцияси ва жигар зарарланиши.

22. Jalolov, N. (2018). Сурункали гепатитларда маҳаллий дуккакли маҳсулотлар асосидаги диетотерапияни клиник–иммунологик самарадорлигини ўрганиш.

23. Кобилжонова, Ш. Р., Жалолов, Н. Н., & Журабоев, М. Т. (2022). Тугри овқатланиш спортчилар юкори натижалари гарови.

24. Kobiljonova, S., Sultonov, E., Sultonova, D., Oblokulov, A., & Jalolov, N. (2023). CLINICAL MANIFESTATIONS OF GASTROINTESTINAL FOOD ALLERGY. *Евразийский журнал медицинских и естественных наук*, 3(5), 142-148.