

# Maldives Health Research Bulletin

Volume X

2024



Ministry of Health  
Republic of Maldives



# FOREWORD

Health research is one the core function that ensures continuous improvement in the health system. Throughout the years, Ministry of Health has promoted health research to aid evidence-based decision making. One of such activity is the annual publication of the Maldivian Health Research Bulletin. This bulletin enables health professionals, public and academia to view recent health research findings in a consolidated platform. On this note, this would be the 10<sup>th</sup> volume of the research bulletin.

The composition of this bulletin includes 7 abstracts of completed research, a list of newly approved and ongoing research projects, an overview of the National Health Research Council and the health research priority areas for 2022-2025. The bulletin serves to fulfill the role of: (1) providing a common platform for students, researchers and other stakeholders to gain easy access to health research materials relevant to Maldivian context, (2) providing technical support to students and researchers by providing information related to existing research as well as by highlighting the health research priority areas and (3) ensuring research is conducted in line with national health research priority areas in accordance with Maldivian legislation and internationally accepted standards.

The Ministry of Health commends the diligent efforts and innovative contributions of our partners, especially to those researchers who contributed to this bulletin. We also acknowledge the dedication of our Health Information Management and Research Division team in ensuring the compilation and publication of the 10<sup>th</sup> volume of this bulletin. Our intention is that this bulletin serves as an informative resource for students, policymakers, and the public. Through this bulletin, we aim to cultivate a culture of evidence-driven policy-making that is embraced by the public and supports the effective implementation of our national plans and strategies.



Abdulla Nazim Ibrahim  
Minister of Health

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# Lived experience of women living with breast cancer in the Maldives: a case study

Author: Salma Hassan & Nazeera Najeeb

Duration: 25th Nov 2022 – 25th Jun 2023

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## Background

The aim of this research is to understand lived experiences of a Maldivian woman undergoing breast cancer treatment and rehabilitative process. The diagnosis of breast cancer at any stage deeply affects the individual and family members. It affects the total quality of life for a prolonged time or lifetime, depending on the circumstances. Women diagnosed with breast cancer will need continuous support during all stages from the time of diagnosis and beyond. It is a challenge to obtain treatment for the women with breast cancer specially those who reside in the islands, due to unavailability of all required services for cancer across the country. It is therefore, essential to explore the lived experiences of a woman with breast cancer in the Maldives.

## Methodology

Phenomenological case study approach was chosen for this research. A single case of breast cancer patient was investigated to gain a deeper understanding of the lived experiences of an individual with breast cancer, who was receiving treatment. Information was obtained through a semi-structured guiding questionnaire. Thematic analysis was carried out to analyze the data.

## Results/findings and implications

Five themes emerged from the data analysis:

1. Feeling sick: the participant was experiencing side effects of chemotherapy and felt always sick
2. Being hopeful: the participant had faith and hope with the acceptance of her condition
3. Satisfied support: the participant was satisfied with the care received from the health care providers, family members
4. Fear of being dependent: the patient had a preconceived fear of being dependent on radiation therapy
5. Out of pocket expenses to access treatment: out of pocket expenditure for frequent travelling was a major concern.

## Conclusion

The participant was satisfied with the support received from the health professionals' family and community. The study found that the individual was unaware of breast cancer, prior to her diagnosis. The study also highlighted that there is a need to address misconceptions and strengthen awareness programs throughout the country. Likewise, there is a need for service expansion.

**The full paper can be accessed by :**

[https://doi.org/10.2991/978-94-6463-248-4\\_16](https://doi.org/10.2991/978-94-6463-248-4_16)

# Perception and Influencing factors of E-cigarette use among young adults in HDh. Hanimaadhoo, Maldives

Author: Shaziya Mohamed

Duration: 07th Jun 2023 - 30th Aug 2023

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## Background

The use of E-cigarette among young adults in the Maldives has increased in an alarming rate in recent years. This study focuses on exploring the perception and influencing factors of E-cigarette use among young adults in HDh. Hanimaadhoo, Maldives. The results of this study can be used locally and nationally to formulate strategies to reduce young adults' exposure and use of E-cigarettes around the country.

## Methodology

This is a qualitative phenomenological study conducted between June to August 2023. In this study, a purposive sample of 12 young adults aged 18 to 25 years who have used or are currently using E-cigarettes were interviewed. The interviews were conducted using a semi-structured interview questionnaire guide. The data was analyzed using thematic analysis. Five main themes emerged: advantages and disadvantages, social influences, psychological influences, contributing factors and access.

## Results/findings and implications

The study shows that current E-cigarette users believe E-cigarettes are harmful to health. Peer pressure and friends who use E-cigarettes, social trends and popularity have been identified as social influences. It has also brought up addiction and the level of satisfaction as perceived psychological factors.

Favorable taste and smell, level of enforcement on rules and regulation were also believed as facilitating factors. Their low price, convenience, and availability made them widely accessible.

## Conclusion

The study findings will be useful in community health awareness programs to make the public more aware of the contributing factors, perceptions, and risks of using E-cigarettes so that they can participate in prevention efforts. A community-based action plans can be made in collaboration with all local law enforcement authorities, local council and schools.

**The full paper can be accessed by contacting the author:**

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# Knowledge, attitude, and perceived barriers to medication administration error reporting (MAER) among registered nurses in a private hospital in the Maldives

Author: Mariyam Azeemath

Duration: 24th Nov 2022 - 31st Dec 2022

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## Background

Reporting medication errors is an essential aspect of ensuring patient safety that has been neglected all over the world. This study explored the knowledge, attitude and perceived barriers to medication administration error reporting from nurses' perspective with the following objectives:

1. Determine the level of knowledge and attitude related to medication administration error reporting among registered nurses.
2. Analyze the perceived barriers contributing to medication administration error reporting among registered nurses.
3. Assess the relationship between the level of knowledge and perceived barriers contributing to medication administration error reporting among registered nurses.
4. Assess the relationship between the attitude of registered nurses and perceived barriers contributing to medication administration error reporting.

## Methodology

A descriptive, correlational design was used. A structured, self-administered questionnaire was distributed to 172 randomly selected nurses at ADK Hospital, Maldives. IBM® SPSS Statistics (Version 26) was used to analyze the data.

The level of knowledge and attitude were categorized using Bloom's cut-off point.

## Results/findings and implications

A total of 164 nurses agreed to participate in this study, which was a response rate of 95.93%. 144 participants had a good to excellent level of knowledge. 90 participants responded with positive attitude towards reporting medication administration errors. The top-ranked perceived barrier among the participants was "Nurses could be blamed if something happens to the patient because of the medication error" ( $3.03 \pm 1.48$ ). "Medication error is not clearly defined" was the lowest ranked ( $1.65 \pm 0.918$ ). A statistically significant strong negative relationship ( $r(163) = -0.818, p = <0.01$ ) was found between "Medical Administration Error Reporting (MAER) attitude" and "perceived barriers to MAER"., A statistically significant weak negative relationship between MAER knowledge and perceived barriers to MAER ( $r(163) = -0.187, p = <0.05$ ) was found.



**Conclusion**

The study findings will be useful in community health awareness programs to make the public more aware of the contributing factors, perceptions, and risks of using E-cigarettes so that they can participate in prevention efforts. A community-based action plans can be made in collaboration with all local law enforcement authorities, local council and schools.

**The full paper can be accessed by contacting the authors:**

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# Assessing the knowledge, attitude, and practice (KAP) of breast self-examination (BSE) in R. Atoll Maduvvari females above 18 years of age

Author: Sufaira Usman

Duration: 01st Nov 2022 - 30th Jun 2023

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## Background

A late-phase breast cancer case in R. Maduvvari, Maldives, was reported in 2012 and passed away in 2013. The patient had no knowledge about prevention or self-examination. Moreover, in late 2020, two women were diagnosed with breast cancer at the latent stage (Shakeela, 2022). The island women's knowledge about breast cancer prevention and self-examination is insufficient (Shakeela, 2022). Assessing the level of knowledge, attitude, and practice of breast self-examination among the Maduvvari women is the main aim of the study. There are no national screening programs for breast cancer in the Maldives. (Rasheed S.H, 2022). Cancer-related research in the Maldives is primarily conducted in the greater Male' area. Most patients are usually diagnosed in the third stage. Having knowledge of BSE will have the right attitude and practice. Understanding the level of community knowledge, attitude, and practice of breast self-examination among the female population is crucial.

## Methodology

A quantitative descriptive correlational cross-sectional study was conducted in the month of May 2023 among Maduvvari females above 18 years of age. A self-administered questionnaire was used to identify the socio-demographic

characteristics, knowledge, attitudes, and practices of BSE among the participants in Dhivehi, analyzed by using IBM SPSS statistics Version 23x64.

## Results/findings and implications

The full sample size was met with 260 participants responding to the study. The median age of the study participants was 34. The knowledge, attitude, and practice of breast self-examination were 42 out of 142 medians. The median knowledge, attitude, and practice scores were of 20, 16, and 7 respectively. Knowledge and attitude variables were positively moderately correlated ( $r(258) = 0.428, p < 0.001$ ).

Additionally, knowledge and practice variables were positively moderately correlated ( $r(258) = 0.569, p < 0.001$ ) and attitude and practice variables were positively found to have a weak to moderate correlation ( $r(258) = 0.321, p < 0.001$ ).

The KAP scores of the different levels of the demographic factors were significantly different, such as in the level of education (the O' level or below (median = 40) and undergraduate (median = 47,  $P = 0.011$ )), the type of occupation (the private sector (median = 34) and the government sector (median = 44,  $P = 0.003$ ), and the health sector (median =

47.50,  $P = 0.001$ ), and the unemployed (median 40) and the monthly income (8,000 or below income group (median = 40.50) had a different KAP score compared to the income group of 10,000 to 20,000 (median = 44.50,  $P = 0.008$ )), and the KAP scores were different based on the number of times they had given birth (never experience (median = 40) and 2-5 times given birth (median = 44,  $P = 0.010$ )).

## Conclusion

BSE knowledge, attitude and practice among the females in Maduvvari were found to be low in overall. Knowledge and attitude variables were positively moderately correlated, while attitude and practice variables had a weak to moderate correlation.

Demographic factors such as education level, occupation, monthly income, and the number of births experienced, significantly influenced the KAP score among participants. Information collected through this study will be useful to the health sector to understand the current situation with regards to knowledge, attitude, and practice, as well as aid in planning new awareness programs to improve breast health awareness.

It is advised that the multiple platforms of the media be used to raise public awareness of breast health. A nationwide KAP study is needed to fully assess the situation at a national level. Further research is needed to probe the matter with a qualitative approach to learn in depth, the reasons why the women of Maduvvari had such low knowledge, attitude and practice.

**The full paper can be accessed by:**

<https://docs.google.com/document/d/1Jwf9ooU8kMiHxnKNIFo0b0NjzqrcvtyAZZq8i88w13c/edit?usp=sharing>

# Bullying in schools: anti-bullying policy and effective interventions

Author: Dr. Aishath Nasheedha & Malsha Muneer

Duration: 01st Jun 2023 – 1st Oct 2023

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## Background

Bullying is considered as the most common form of violence that takes place within the school context. Although bullying has been researched for over four decades, yet the issue still remaining prevalent is of a concern to school administration. For any act of violence to be considered as bullying, it should have three characteristics: repetition, intentional and power difference. To combat the issue of bullying, the Ministry of Education, Maldives officially launched a policy to stop bullying in the schools on 14th February 2019. The aim of the policy was to create awareness amongst students and staff in the schools as many school children perceive school as a hostile environment when bullying incidents occur. Hence, the bullying policy encourages schools, parents, and the community to take responsibility for prevention and mitigating bullying incidents. In this study anti-bullying policy is evaluated and reviewed to understand the effective prevention methods that are in place for schools to mitigate bullying.

## Methodology

The study takes on a qualitative research approach to evaluate the existing anti-bullying policies and National Curriculum on Health and Physical Education (PE) of key stage 1.

The content of the curriculum is evaluated in depth to understand the effective bullying interventions that are embedded in the curriculum. Further analysis of existing suicide prevention policy and student behaviour regulation guidelines will also be implemented.

## Results/findings and implications

The anti-bullying policy is very comprehensive. The standard intervention stated in the policy in case of a bullying incident is to provide psychosocial support via school counselor, however, in the absence of a counsellor the class teacher/ leading teacher/ life skills facilitator needs to intervene. What is concerning is that many schools are without a counsellor and a trained life skills facilitator. Additionally, in analyzing the Health and PE curriculum, it is revealed that there is a brief mention of bullying without additional context.

## Conclusion

Through this review it is hoped that effective bullying strategies can be developed and implemented in schools to endure that school is a safer place for students and a trusted place for parents to send their students.

**The full paper can be accessed by contacting the author:**

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# Level of wellbeing among Maldivians during the COVID-19 pandemic

Author: Dr. Aishath Nasheeda, Dr. Dheeba Moosa, Dr. Visal Moosa, Khaulath Saeed & Visama Hassan

Duration: 01st Sept 2020 – 1st Mar 2021

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## Background

This study aims to present the level of wellbeing associated with demographic factors and COVID-19 related factors of people living in the Maldives during the COVID-19 pandemic.

## Methodology

The study was a cross-sectional quantitative research design. Data were collected from 312 participants aged 18 years and above using a two-stage random sampling approach. Mental Health Continuum Short Form (MCF-SF), was used for data collection.

## Results/findings and implications

The mental wellbeing results revealed average scores in the three wellbeing domains; emotional wellbeing 4.33 (SD= 0.05), social wellbeing 3.81 (SD= 0.05), and psychological wellbeing 4.60 (SD= 0.04). Females reported a higher level of stress and a low score on the mental wellbeing scale. Participants who were single reported higher levels of stress and low levels of mental wellbeing than those who were married or divorced/widowed.

Those who were unemployed and those who feared receiving medical assistance reported higher levels of stress while scoring low on mental wellbeing.

At the time of the study, which was during the first wave of the pandemic, the most affected region was Male', while no significant case numbers were reported in the islands, which represents a significant population in the dataset.

## Conclusion

This study was among the few studies done in Maldives examining the mental wellbeing of the people during the COVID-19 pandemic. As such, this study indicates the extent to which Maldivians were affected by the pandemic. This information will be useful for relevant authorities to plan effective interventions, identify vulnerable groups and plan to reduce the burden of mental health during crises in the future.

**The full paper can be accessed by contacting the author:**

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# Role of community in drug prevention: a retrospective case study of GA. Gemanafushi

Author: Nahid Hussain, Dr. Aishath Nasheeda,  
Fathimath Shauzan & Azra Abdul Sattar

Duration: 01st Jun 2023 – 01st Dec 2023

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## Background

Communities' role in drug prevention is vital. It is also a cost-effective prevention and treatment approach. However, many communities fail to intervene in drug prevention due to the strong stigma attached to drug use. Addiction is a guarded secret in the Maldivian community. Many families are reluctant to report drug use and addiction issues in the family due to the shame and humiliation attached in seeking help. The objective of this paper is to explore the role of community engagement in the drug prevention program at Gemanafushi.

## Methodology

The study explores documents, artifacts and interviews from the local police. To analyze the case of Gemanafushi this study takes on UNDOC's Model of Community-based treatment: Community organizations, Screening and Social welfare, which is governed by nine principles.

## Results/findings and implications

The results revealed that while the case of Genamafushi was seen to be effective in reducing substance use among youth and adults, promoting factors that minimize risk for substance use such as public awareness activities, sound public health and public safety policies needs to be strengthened.

Also, a treatment process needs to be in place to all drug users along with proper counselling and psychosocial interventions.

## Conclusion

Therefore, a proper strategic prevention framework needs to be implemented to identify prevention needs, capacity building such as readiness to address prevention needs and evaluate the outcome of the program to build an adaptive and effective system that ensures long term results.

**The full paper can be accessed by contacting the author:**

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## NATIONAL HEALTH RESEARCH COUNCIL (NHRC)

The National Health Research Council (NHRC) was formed on 20th May 2019 under the Health Services Act (29/2015) and Health Research Regulation (R-1006/2019). The responsibilities of the council include undertaking the scientific and ethical review of all types of health research proposals, including clinical trials, as well as monitoring of all approved health research.

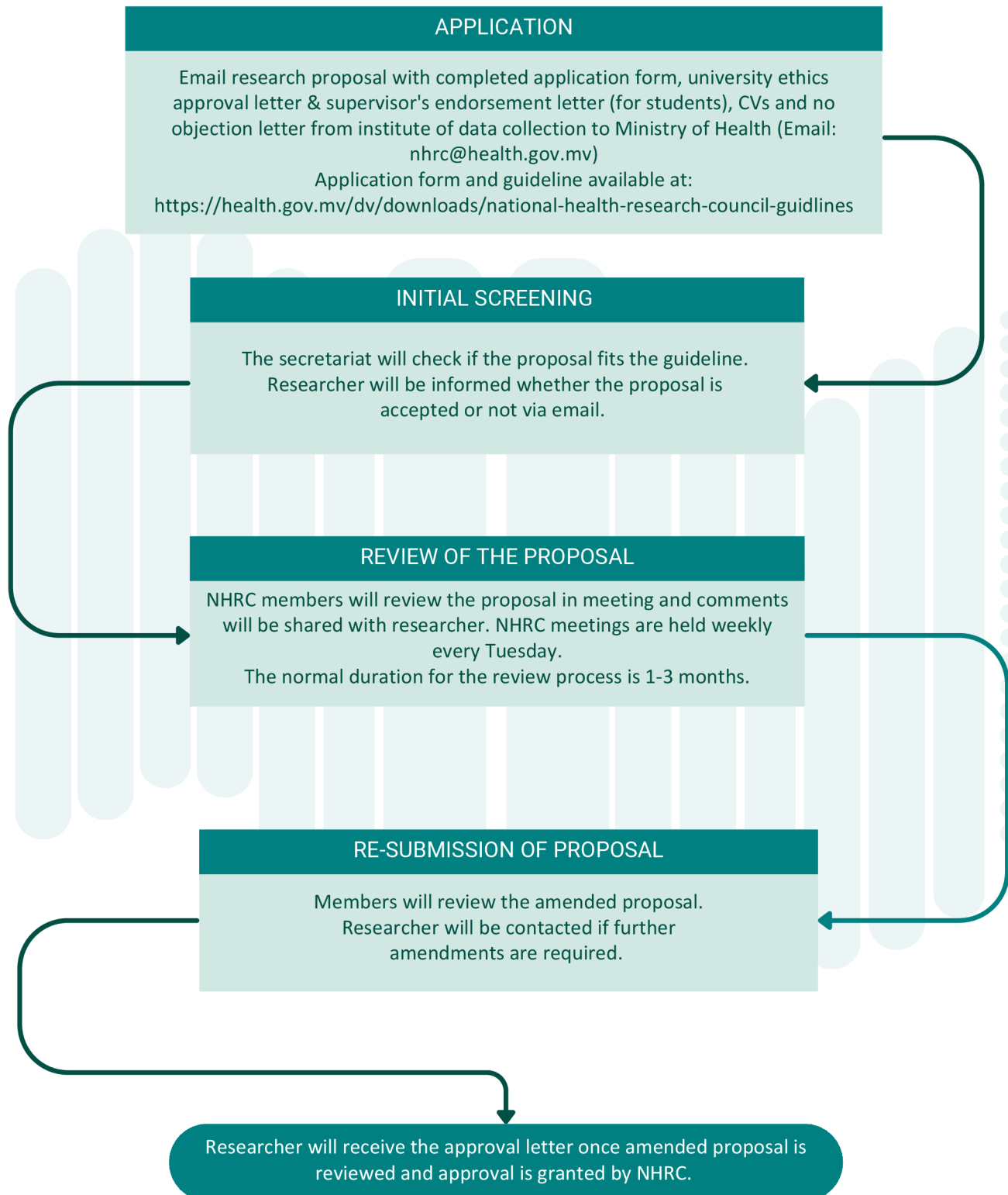
Previously, the National Health Research Committee was established in 1999, as a strategy outlined in the Health Master Plan 1996-2005 to strengthen the development and implementation of research relating to the health sector. With the establishment of the National Health Research Committee, all health related research had to be submitted to the committee and approval sought before implementation. In this regard, the Ministry of Health issued a circular (23-C3/99/C-24) on 15th August 1999 to implement this strategy effective from 01st September 1999.

The NHRC has received several research proposals for approval. A guideline was developed to assist researchers such as medical and nursing practitioners, program managers and students in developing research proposals for submission to the NHRC.

### REPRESENTATIVES IN THE NATIONAL HEALTH RESEARCH COUNCIL

1. Ministry of Health / Director General of Health Services
2. Ministry of Health / Health Information Management and Research
3. Ministry of Health / Maldives Food and Drug Authority
4. Ministry of Health / Health Protection Agency
5. Ministry of Health / Quality Assurance and Regulation
6. Ministry of Health / Dhamanaveshi
7. Ministry of Education
8. Ministry of Islamic Affairs
9. Attorney General's Office
10. Maldives Bureau of Statistics
11. Faculty of Health Sciences/ Maldives National University (MNU)
12. Academic institution other than MNU
13. Indira Gandhi Memorial Hospital
14. Tree Top Hospital
15. Maldives Nurses Association (NGO)
16. Individual researcher

## RESEARCH REGISTRATION AND APPROVAL PROCESS





# NATIONAL HEALTH RESEARCH COUNCIL

## APPROVED RESEARCH LIST 2023-2024

- Professional Quality of Life (QoL), resilience, self-efficacy and psychological repercussions of frontline nurses caring for COVID-19 patients in the Maldives: a mixed method study
- National study on family well-being and life experiences in the Maldives (2023-2024)
- Nurses and support staff perception towards health care waste management practices and risk associated at V. atoll hospital, Maldives
- A multicentric study for promotion of antimicrobial and diagnostic stewardship in the management of UTI: an experiment in mentorship to expand the one health concept
- A comprehensive assessment on management capacity of public health units for utilizing primary health care approach in control of major non-communicable diseases in Maldives
- Prevalence of blood donor deferral and its causes in the donor population at a stand-alone blood bank in the Maldives
- Road to recovery – stories from youth cannabis users
- Methylenetetrahydrofolate reductase (MTHFR) gene C677T polymorphism and its association with folate, homocysteine, anemia, menstrual cycle patterns, outcomes of pregnancy, and risk of cardiovascular disease in Maldivian females.
- Perception and influencing factors of e-cigarette use among young adults in HDh. Hanimaadhoo, Maldives
- Factors influencing knowledge and practice towards exclusive breastfeeding among mothers with children aged 0-24 months in B. Eydhafushi
- Characteristics of tobacco users who visited the tobacco cessation clinic at Dhamanaveshi, Male' city, Maldives, from 2017 – 2023: a retrospective cross-sectional
- Knowledge, attitude, and practice towards balanced diet and healthy lifestyle among Villa college students in Maldives
- The knowledge, attitude and practice about dengue virus infection among the adult population of K. Gulhi of Maldives
- Lived experience on postnatal care among postpartum women in the Republic of Maldives
- Exploration of adolescent's perspectives regarding influences on their food choices
- A phenomenological study of childhood experiences of adult children who had a parent with a drug addiction
- Preliminary assessment of Mercury exposure level for citizens in Maldives due to high-level fish consumption in daily diet
- Factors affecting dementia: a study conducted in Greater Male' area, Maldives
- The prevalence of obesity and the knowledge, attitude and practices on obesity among the adult residents of HDh. Neykurendhoo, Maldives.

## Health Research Priority Areas (2022-2025)

Ranks	Top 10 health research priorities areas
1	Disease epidemiology, risk factors, prevention and control
2	Food and nutrition
3	Healthcare quality and safety
4	Health promotion
5	Health resource allocation
6	Advancement of health technology, e-Health, telemedicine
7	Clinical studies
8	Access to health care
9	Health governance, including clinical and public health governance
10	Healthy lifestyle
Ranks	Top 10 clinical research priorities
1	Cancer
2	Cardiovascular Diseases
3	Mental health, behavioral disorder, and substance abuse
4	Kidney diseases
5	Endocrine and metabolic disorder, including diabetes
6	Respiratory diseases
7	Reproductive and maternal health
8	COVID-19 and emerging diseases
9	Sexual health
10	Blood disorders



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