

HEYHAN - 2000

FACULTY OF HEALTH SCIENCES

The fifth edition of Heyhan reports on recent faculty events and several stakeholder collaborative achievements.

GRADUATION NEWS



We are proud to share that 44 students graduated in the October 2025 ceremony from the following disciplines:

- Bachelor of Counseling
- Bachelor of Health Service Management
- Bachelor of Medical Laboratory Science
- Bachelor of Physiotherapy
- Bachelor of Primary Health Care

Congratulations to all our graduates on this significant achievement!

KEY HIGHLIGHT OF THE YEAR

Our team collaborated with the Health Protection Agency, Ministry of Health, and other partners for the Public Health Conference from 8-9 Dec 2025, organised by the HPA - Maldives in collaboration with the Maldives National University. This conference marked a renewed national commitment to convene a public health platform every two years, creating space for continuous dialogue on system priorities, emerging challenges, and progress across the sector.

The theme of this year's two-day conference is "Equitable Access, Reduced Vulnerabilities: Advancing Migrant Health in the Maldives", uniting stakeholders to advance policy implementation, improve service delivery, and address the vulnerabilities faced by migrant communities. Through technical sessions and collaborative discussions, the conference aimed to drive practical, evidence-informed action toward more equitable health outcomes.

The event concluded with a closing ceremony showcasing the key outputs of the conference, alongside national public health milestones and recent achievements across the sector, reinforcing the country's commitment to a stronger, more inclusive public health system.









TEAM BEHIND 'HEYHAN'

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WORTHY MENTIONS OF THE YEAR

RESEARCH AT FHS

We are pleased to share that three research grants from the MNU Grants 2025 Call 2 have been awarded to teams from the Faculty of Health Sciences (FHS). This marks a significant milestone for the faculty and reflects the spirit of collaboration, innovation, and research dedication among our staff. The following are the details of the grants:

- Team 1: Aishath Hassan (Lead), Ibrahim Nishan Ahmed, Mohamed Hamzath, and Hussain Maniu
 - Title: "Investigating Factors Contributing to Low Enrolment in Public Health Courses at the Maldives National University: Perspectives of Secondary School Graduates and Key Stakeholders."
- Team 2: Dr. Mohamed Sam-aan Hussain (Lead), Mohamed Zaid, Dr. Aishath Niyaf
 - Title: "A Cancer Profile of Breast, Thyroid, and Head & Neck Cancers at IGMH, Maldives: A Cross-sectional Study."
- Team 3: Mohamed Zaid (Lead), Dr. Aishath Niyaf, Dr. Mohamed Sam-aan Hussain, Dr. Ibrahim Afzal, Dr. Razana Faiz, Dr. Ibrahim Afzal, Dr. Razana Faiz, Jeehan Mahmood, Ismail Azzam Wajeeh
 - Title: "Prevalence and Risk Factors of Cardiovascular Disease Among Maldivian Adults: A Cross-sectional Study."

In addition, 7 of our staff presented their papers at the Theveli Conference 2025.







STAKEHOLDER COLLABORATIONS AND COMMUNITY ENGAGEMENT

- Medical Science Seminar was held for students with a series of internal and external lectures such as, 'Impacts of Climate Change on Human Health: Immune Dysfunction and Disease' by Fathimath Zimna, Associate Lecturer, 'The Immunological Imperative of Quality Sleep', by Aishath Majidha Hassan, Senior Lecturer, and 'Impact of Female Age on IVF Success Rates, with a focus on its influence on Oocyte Quality' byMs. Imrana Abdul Aleem, Chief Medical Laboratory Technologist, Department of Medical Laboratory, Tree Top Hospital.
- A meeting was held with Dr. Abdul Samad Memorial Hospital and MNU Thinadhoo Campus to explore placement opportunities for students studying in the Physiotherapy and Phlebotomy courses at MNU.
- Health screening sessions took place at the "Viluntheri Fest" for International Disaster Risk Reduction Day 2025, organized by the National Disaster Management Authority of Maldives and partners on October 17, 2025. The Maldivian Red Crescent helped distribute flyers to migrant communities. Over two hours, approximately 107 expatriates were screened for blood pressure, body mass index (BMI), and blood glucose levels, followed by personalized counseling on hypertension, dietary changes, BMI-related issues, and diabetes control.
- On the occasion of World Occupational Therapy Day, Occupational Therapy Maldives (OTAM) and our faculty held a meeting with key stakeholders from various health and social institutions and NGOs to highlight the role of Occupational Therapists and the importance of building human resources in the Maldives.
- We held the first CME/CNE session for Hulhumalé Hospital staff as part of the SCALE project. This initiative, led by the England NHS Trust, aims to enhance global healthcare workforce capacity. It's a collaboration between NHS Northumbria and MNU focused on improving surveillance of Antimicrobial Resistance (AMR) and reducing hospital-acquired infections through effective antimicrobial stewardship in targeted healthcare institutions.











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STAFF PROFESSIONAL DEVELOPMENT HIGHLIGHTS

• Trainers from Flinders University visited the Maldives to carry out the in-country components of the Australia Awards Fellowship, "Development of Health Profession Education Capacity in the Maldives." During this visit, workshops were held on Educational Research, Coaching & Interprofessional Learning, and Generative AI. During this visit, the trainers also visited HSPN in K. Guraidhoo.

- Trainers from Flinders University and colleagues from the School of Nursing and the School of Medicine met the Australian High Commissioner to the Maldives, H.E. David Jessup, to share the developments of the Australia Awards fellowship program on the 'Development of Health Professions Education (HPE) Capacity in Maldives', along with the valuable lessons learnt from all the workshop sessions under this program.
- We presented at the Ilmy Foavahi, focusing on the area of IPL and collaborative healthcare.
- Deputy Director, Hassan Mohamed, attended a seminar on Higher Education and Vocational Education Management for the Maldives, organised by the Academy for International Business Officials (AIBO) and MOFCOM, held from September 5th to 26th.
- Our physiotherapy lecturers, Mr. Felix Renald Selvaraj and Ms. Uzma Sayyad, presented at the Physiotherapy Symposium with the theme, Healthy Ageing: Strategies for Prevention of Falls and Management of Frailty, held from September 15-16 at Dharumavantha Hospital.
- FHS hosted a 16-hour face-to-face Clinical Supervision Training (ToT) with WHO Consultant, Dr. Rachel Ting Sing-Kiat, for 12 mental health professionals, including clinical supervisors at FHS.









STUDENT LEARNING EXPOSURES

- FHS students participated in the first Undergraduate Student Research Symposium at MNU, held as part of the Theveli International Conference 2025. The symposium marked a significant milestone in showcasing undergraduate research and its contribution to nation-building, paving the way for future research initiatives.
- Primary Healthcare students are out in the field, gaining invaluable experience as part of their internship program at HPA Maldives, where they apply their knowledge and skills to provide quality public health services in real-world settings.
- Bachelor of Pharmacy (semester 7) students gained valuable hands-on experience exploring diverse facets of the pharmaceutical field through their three-week externship program in Manipal College of Pharmaceutical Sciences under Manipal Academy of Higher Education. This externship provided students with real-world exposure, bridging classroom learning with professional practice and strengthening their readiness for future roles in the pharmaceutical industry.
- Bachelor of Primary Health Care (BPHC) 3rd semester students completed their clinical posting at Lhaviyani Atoll Hospital, while Bachelor of Primary Health Care (BPHC) 2nd semester students completed their clinical posting at Kulhudhuffushi Regional Hospital. This practical posting provided students with valuable exposure to preventive, promotive, curative, and rehabilitative services, helping them connect classroom learning with real-world health care delivery.









HIGHLIGHTS OF 2025, TERM 2

AUGUST

• Dean's Awards and Special Recognitions for Term 2, 2025, were awarded to 47 students.



OCTOBER

- World Mental Health Day activities:
 - Our students prepared creative activities such as the mental health digital kits for the Viluntheri Mahaasama, organised by the Ministry of Health and other partners for World Mental Health Day.
 - Self-care kits with fun games, puzzles, masks, and teas, along with a monthly planner, were distributed among our team.
 - We partnered with M7 Print, Fuel Supply Maldives, and Rotary Club Maldives to conduct mental health awareness sessions.









- SEPTEMBER

• Students' celebration of physiotherapy week consisted of social media campaigns and community engagement events (i.e., information awareness sessions for senior citizens at Israhvehinge Naadhee and recreational stalls, a mass exercise session at Usfasgandu), and ended with a blast with physiotherapy night collaboratively celebrating achievements of students, educators, and key physiotherapy professionals and service providers.





• Pharmacy Day was celebrated by inaugurating the Pharmacy Lab at the faculty





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LECTURER BURNOUT: IS IT TALKED ABOUT ENOUGH?

Written by: Aminath Samha, Lecturer. Department of Behavioral Sciences

It's 11:00 PM. You have finished the lecture slides and burned that midnight oil marking the last exam paper. As your head hits the pillow, you tell yourself, "Okay, one more check on Gmail." You open the app and see a flurry of unread emails from students and faculty heads. What are you going to do? You are already thinking about tomorrow's class and the tasks pending. You gently remind yourself that you will rest after this week - after the next deadline, the next meeting, and the next marking cycle.

Does this sound familiar to you? If so, you're not alone, and this article is just for you!

Burnout syndrome has been described as a lack of ability to cope with emotional stress at work and as a psychological syndrome

(Kovalkova & Malkova, 2021). This study highlighted that male lecturers tend to feel tense (that's 47.45% of them), while women often find themselves in a phase of 'resistance' (42.73%).

Yes, there is no doubt that teaching is a rewarding career, and it is inspiring to be able to shape the lives of young minds and set them up for success. For this reason, it can often be hard to admit when work begins to feel overwhelming. A survey conducted in 2024 using the Perceived Stress Scale among 18 of the 39 lecturers revealed an average score of 19.7. This score categorizes their stress levels as moderate, indicating that the staff are likely to feel pressure or burdened by certain aspects of their work or personal lives. However, they are not experiencing overwhelming or chronic stress levels.



Burnout is more than feeling tired after a busy semester. It is a state of emotional, physical, and mental exhaustion caused by prolonged stress. Lecturers experiencing burnout may notice a growing sense of detachment from their work, reduced motivation, or a feeling that no matter how much they do, it is never enough. And the many misconceptions that others hold about this profession do not help. How many of you have heard the following? "Oh, you must be getting a long holiday?" or "You just stand in front of a class and teach. What's so stressful about that?" These comments often overlook all the behind-the-scenes activities that are happening. Plus, it's a myth that burnout is just about poor time management or resilience; even the most organized and dedicated professionals can feel overwhelmed when demands outstrip resources.

Now the question is, what can we do about this? Let's face it: the workload is not going anywhere. On a broader level, organizations can help by implementing a Work-Life Integration policy to ease the balance between work and personal lives for lecturers (Vinahapsari, Ibrahim, & Kimpah, 2024).

At a personal level, it can be helpful for lecturers to pause and reflect: When was the last time I felt genuinely rested? What boundaries have slowly eroded? What support might I need right now? When a student says, "You are the reason I was able to get through the program with everything that was going on," don't those words lift your spirits? Draw energy from such words. You may not always see the impact you are making on someone's life right away, but each one of you is changing lives in ways you can't always measure.

By openly and compassionately acknowledging lecturer burnout, we take a crucial step towards building healthier and more supportive academic communities. Yes, the workload will always be there, but you don't have to lose your sense of self in it. You matter, and your energy is worth protecting!



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THE IMPACT OF CLIMATE CHANGE ON HUMAN HEALTH: THE ROLE OF AIR POLLUTION IN IMMUNE DYSFUNCTION AND DISEASE

Written by: Fathimath Zimna, Associate Lecturer. Department of Medical Sciences

Recently, a series of public health advisories was issued nationwide by the Health Protection Agency following warnings from the Meteorological Service regarding the reduced quality of air across the Maldives. Data from the AQI Air (AQI+) indicated that air quality levels have been adversely affected. In recent days, atmospheric changes and concerns over the quality of air we breathe and its implications for our health have become a topic of discussion among the general public.

It has long been established that anthropogenic activities such as deforestation, urbanization, modern agricultural practices, the manufacture of synthetic chemicals, and the use of fossil fuels and biomass for energy are driving environmental alterations. The rising greenhouse gas emissions are driving up global temperatures, leading to more frequent and severe climate change impacts like increased frequency and severity of heatwaves, poor air quality, wildfires, sand and dust storms, and thunderstorms (Belle et al., 2017). These



alterations modify the human exposome (the cumulative environmental factors an individual encounters over their life) and elevate our susceptibility to illness (Adami et al., 2022).

Climate-driven amplification of environmental stressors (human exposomes) disrupts the bidirectional communication between organ systems, resulting in an imbalance in homeostasis. Recent scientific evidence suggests that climate change-related environmental stressors are driving an increase in the incidence of immune-mediated diseases such as asthma, allergies, autoimmune diseases, and cancer through immune dysregulation (Agache et al., 2024; Cardenas et al., 2023; International Labor Organization, 2024).

HOW ENVIRONMENTAL STRESSORS LEAD TO IMMUNE DYSFUNCTION

While the human immune system protects us from invading microbes and foreign particles, constant overstimulation from environmental stressors such as air pollutants can cause our immune system to become overactive, leading to chronic inflammation and disease. The primary mechanism involves disruption of the mucosal epithelial barrier, which is the body's first line of defense, along with the development of microbial dysbiosis (Agache et al., 2024).

Increased exposure to air pollutants such as particulate matter (PM) 2.5 and other toxic substances in the air, water, and food leads to damage of the epithelial barrier, which increases the penetration of allergens and microbes, consequently resulting in pro-inflammatory reactions. This damage prompts the release of pro-inflammatory epithelium-derived cytokines, resulting in a cascading chain of responses. The cytokine storm leads to the proliferation of B cells and an increase in the production of IgE. The IgE binds to the high-affinity IgE receptors on mast cells. Upon subsequent exposure to allergens, these sensitized individuals develop a type 1 hypersensitivity reaction, resulting in the release of pre-formed mediators such as histamine, prostaglandins, leukotrienes, and other cytokines. These mediators enhance vascular permeability, promote smooth muscle contraction, and cause eosinophilic infiltration, leading to systemic adverse outcomes (Adami et al., 2022; Kim et al., 2024; Zhang et al., 2019).

Multiple studies have shown that loss of epithelial barrier integrity is the underlying pathophysiology of immune-mediated diseases such as asthma, allergic diseases, and autoimmune diseases, associated with air pollutants (Kayalar et al., 2024; Kim et al., 2024; Thurston et al., 2020; Zhang et al., 2019).

These studies show that air pollution, especially exposure to Particulate Matter (PM) 2.5, compromises the integrity of the epithelial barrier by decreasing transepithelial resistance and increasing epithelial permeability in a dose- and time-dependent manner. It also boosts pro-inflammatory cytokine production in nasal epithelial cells, including higher levels of IL-8, TIMP-1, and TSLP. Overall, these effects weaken the epithelial barrier and help explain the increased risk of inflammation in PM 2.5-polluted environments (Adami et al., 2022; Agache et al., 2024).

GLOBAL BURDEN OF EXPOSURE TO AIR POLLUTANTS

The chronic inflammatory status propagated by exposure to air pollutants like PM 2.5 increases the long-term risk of developing an array of medical conditions, affecting multiple organs and systems of the body (WHO, 2021, 2025, 2025; WHO EMRO, 2025; Zhang et al., 2019). It has been estimated that 6.4 million deaths occur globally that have been attributed to air pollution, out of which 84 percent are due to non-communicable diseases (NCDs) such as lung cancer, stroke, heart disease, and chronic obstructive pulmonary disease (WHO, 2025).

STRATEGIES TO MITIGATE THE NEGATIVE CONSEQUENCES OF AIR POLLUTION:

Reducing deaths attributed to air pollution is an indicator under the United Nations Sustainable Development Goal 3: Good Health and Well-being, specifically indicator 3.9.1, which measures mortality rates associated with household and ambient air pollution (WHO, 2021, 2025, 2025).

Short-term measure:

- Use air purifiers to improve air quality.
- Keep doors and windows closed to limit the infiltration of outdoor air.
- Restrict outdoor activities during the period of poor air quality.
- Use respirators, such as N95 masks, for personal protection.

Long-term measures:

- Increase greenery through the strategic placement of urban green spaces.
- Transition to green energy sources to reduce emissions, in specific sectors such as transport.
- Ensure the provision of safe and resilient housing.

Although the Maldives contributes a negligible share to global greenhouse gas (GHG) emissions (approximately 0.003%), the Maldives is among the most vulnerable to the adverse impacts of climate change, including deterioration of air quality.



SOCIO-ECONOMIC DISPARITIES

The populations in low- and middle-income countries (LMICs) bear a disproportionate share of the adverse effects of air pollution, largely due to limited national financing capacity to implement effective mitigation policies and, at the individual level, reduced ability to afford protective measures such as air purifiers, face masks, and improved housing conditions (WHO, 2021, 2025).

South Asia bears a disproportionate burden of air pollution, with nine of the world's ten most polluted cities located in the region. In some areas, concentrations of fine particulate matter (PM2.5) reach levels up to 20 times higher than the World Health Organization's recommended health limit of 5 μ g/m³, contributing to an estimated two million premature deaths each year across the region (World Bank, 2023).

