JSS ACADEMY OF HIGHER EDUCATION AND RESEARCH MAURITIUS

A degree awarding institution registered with the Higher Education Commission, Mauritius

In Association With

NAM S&T CENTRE CENTRO DE CyT NOAL CENTRE S&T DU NAM

INTERNATIONAL CONFERENCE
ON
"LIFESTYLE DISEASES (LSD) IN THE DEVELOPING WORLD:
PERSPECTIVES, CURRENT STATUS AND FUTURE CHALLENGES"

(LSD - 2026)

14 – 15 MAY 2026

ROYAL GREEN WELLNESS RESORT
MOKA, MAURITIUS

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Message from the CEO & VC of JSSAHERM

Prof (Dr) Praveen Mohadeb
CEO & Vice-Chancellor, JSSAHERM

It gives me immense pleasure to extend my warm greetings to all delegates, researchers, academicians, healthcare professionals, policymakers, students, and distinguished guests participating in the International Conference on:

"Lifestyle Diseases (LSD) in the Developing World: Perspectives, Current Status and Future Challenges (LSD–2026)"organized by the JSS Academy of Higher Education and Research, Mauritius (JSSAHERM) in association with the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi, India, during 14–15 May 2026 at the Royal Green Wellness Resort, Moka, Mauritius.

The growing burden of lifestyle diseases has become one of the most significant public health concerns of the 21st century, particularly in developing nations. Rapid urbanization, changing dietary patterns, sedentary lifestyles, stress, environmental factors, and socio-economic transitions have collectively contributed to the increasing prevalence of non-communicable diseases such as diabetes, cardiovascular disorders, obesity, cancer, and mental health conditions. These diseases not only impact the quality of life of individuals but also place tremendous pressure on healthcare systems and national economies.

In this context, the theme of the conference is highly relevant and timely. It provides an important international platform for deliberating upon the perspectives, current status, emerging trends, and future challenges associated with lifestyle diseases, especially within the developing world and Non-Aligned countries.

The thematic areas of the conference, including epidemiology of lifestyle diseases, nutrition transition and urbanization, youth and mental health, integrative healthcare approaches, health system strengthening, digital health and Artificial Intelligence, and women's health, are of immense global significance. These discussions are expected to foster multidisciplinary collaborations and generate innovative ideas that can contribute towards healthier societies and stronger healthcare systems.

The conference reflects JSSAHERM's collective commitment towards advancing scientific dialogue, strengthening collaborative research, and identifying sustainable and evidence-based solutions to address these pressing health concerns.

At JSSAHERM, we strongly believe that higher education institutions have a crucial role in shaping the future of healthcare through quality education, impactful research, innovation, and community engagement. This conference aligns with our vision of promoting academic excellence and international partnerships while contributing meaningfully towards the achievement of the United Nations Sustainable Development Goals (SDGs), particularly SDG 3: Good Health and Well-being.

I am confident that LSD–2026 will serve as a valuable forum for knowledge exchange, networking, and policy dialogue among experts and stakeholders from various countries. The recommendations and conference resolutions emerging from this event will undoubtedly provide important directions for future research, healthcare strategies, and public health policies.

I take this opportunity to congratulate the organizing committee, scientific committee, partners, sponsors, and all contributors for their dedicated efforts in organizing this important international conference. I also extend my sincere appreciation to the NAM S&T Centre, New Delhi, for their continued collaboration and support.

I wish the conference grand success and hope that all participants will have enriching scientific interactions and a memorable experience in Mauritius.

Thank you and once again welcome you all to Mauritius!

Message from the Director General of NAM S&T

Amitava Bandopadhyay, Ph.D.
Director General,
NAM S&T Centre, New Delhi

Lifestyle diseases or Non-Communicable Diseases (NCDs) are emerging as major public health challenges across the developing world. Rapid urbanization, changing food habits, sedentary lifestyles and increasing stress levels have significantly contributed to the growing burden of these diseases, placing immense pressure on healthcare system and socio-economic development. Developing countries today face a dual burden of infectious diseases and as well as lifestyle-related disorders.

The increasing prevalence of lifestyle diseases poses a serious challenge to achieving the United Nations Sustainable Development Goals (SDGs), particularly SDG 3 on "Good Health and Well-being", which aims to reduce premature mortality from NCDs through prevention, treatment and lifestyle management. Addressing these challenges requires stronger healthcare systems, preventive strategies, scientific innovations and greater international cooperation. Proper management of lifestyle diseases will also contribute towards SDG-1 (No Poverty), SDG-10 (Reduced Inequalities) and SDG-17 (Partnerships for the Goals).

In this context, the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi, India, in partnership with the JSS Academy of Higher Education and Research, Mauritius (JSSAHERM), is organizing a Joint International Conference on *"Lifestyle Diseases in the Developing World: Perspectives, Current Status and Future Challenges"* during 14–15 May 2026 in Mauritius.

This Conference aims to provide an important platform for researchers, healthcare professionals, scientists, academicians and policymakers from developing countries to exchange knowledge, share experiences and deliberate upon innovative and sustainable approaches for prevention and management of lifestyle diseases. I am confident that the deliberations during the Conference will help strengthen collaborative research, policy dialogue and enhance South-South cooperation in addressing the growing burden of NCDs.

As many of you are aware, the NAM S&T Centre is an Inter-Governmental Organization which was set up in 1989 in New Delhi, India in pursuance of the recommendations in various NAM Summits. It is a diplomatic entity and has 47 Member Countries from the African, Middle Eastern, Asian, Latin American and European Regions. The primary focus of the Centre is enhancing South-South Cooperation in Science & Technology for collective self-reliance of our Member Countries and other developing countries. In order to achieve its objectives, the Centre holds International Workshops, Training Programmes/Training Workshops and Conferences on various S&T themes; undertakes collaborative S&T projects and offers short-term Fellowships to scientists and researchers from developing countries in association with the Centres of Excellence in various countries. In addition, the Centre encourages Academic-R&D-Industry interactions in the developing countries through its "NAM S&T-Industry Network". The Centre is giving special focus on helping the NAM S&T Centre Member Countries in their capacity building to achieve the UN Sustainable Development Goals – 2030. *More details about the Centre are available at* www.namstct.org.

The Abstract Booklet presents a collection of research abstracts and scientific contributions shared during the Conference, reflecting current knowledge, emerging trends and innovative approaches in the field of lifestyle diseases in the developing world.

I congratulate the organizers, collaborating institutions and all contributors for their valuable efforts, and wish the Conference great success.

About the Conference

In recent decades, Lifestyle Diseases, also known as Non-communicable Diseases (NCDs) have emerged as the leading cause of morbidity and mortality across the globe, including in the developing world. These diseases, including diabetes, cardiovascular diseases, cancer, chronic respiratory illnesses and obesity are closely linked to changing lifestyles, urbanization, sedentary behavior, poor dietary patterns and increasing stress levels.

While once considered the health burden of high-income nations, the rapid epidemiological transition in developing countries, particularly in Africa, Asia and Latin America has created a dual burden of disease. These regions continue to grapple with infectious diseases while simultaneously facing a surge in NCDs. The lack of robust health infrastructure, inadequate surveillance systems, limited access to early diagnosis and care, and socio-economic disparities make lifestyle diseases an even more formidable challenge in these settings.

Regional differences in risk factors, healthcare access, policy implementation and indigenous knowledge systems must be studied and addressed through locally contextualized frameworks rather than 'one-size-its-all' global approach. The growing burden of lifestyle diseases poses a signiicant threat to achieving the United Nations Sustainable Development Goals (SDGs), particularly: SDG 3: Good Health and Well-being that explicitly aims to reduce premature mortality from NCDs by one-third by 2030 through prevention and treatment; SDG 10: Reduced Inequalities – Lifestyle diseases disproportionately affect marginalized communities with limited access to care; SDG 1: No Poverty – NCDs often push families into poverty due to long-term health expenditures and productivity losses; and SDG 17: Partnerships for the Goals – addressing lifestyle diseases requires robust collaborations across governments, academia, industries and civil society, especially in South-South cooperation scenarios.

In this context, the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi, India; in partnership with the JSS Academy of Higher Education and Research, Mauritius (JSSAHERM) is pleased to organise a Joint International Conference on “Lifestyle Diseases in the Developing World: Perspectives, Current Status and Future Challenges” during 14-15 May 2026 in Mauritius. The Conference will be hosted by JSSAHER, Mauritius.

This conference aims to build cross-national dialogue, encourage capacity building, and promote evidence-based, inclusive and affordable strategies that can help countries curb the lifestyle disease epidemic. Special attention will be given to youth health, urban slums, rural-urban divide and women’s health - areas that often remain

under-addressed in NCD discourse. This conference offers a timely platform to convene experts, researchers, pharmacists, medical practitioners and policymakers to deliberate upon the pressing challenge of lifestyle diseases and to explore strategic interventions tailored to the unique needs of the developing world. It aims to facilitate the sharing of experiences and best practices across nations, with hope that discussions on "Health Delivery Systems" would enable us to learn more from each other and strengthen collective responses.

Conference Objectives

The objectives of this conference are to

1. **Deliberate on the current trends, risk factors and socio-economic burden of lifestyle diseases** in the developing world with particular emphasis on the African and South Asian regions.
2. **Share scientific innovations, preventive strategies, health policies and research findings** aimed at reducing the burden of lifestyle-related NCDs.
3. **Strengthen health systems and primary healthcare responses** for the prevention, early detection and management of lifestyle-related NCDs, in line with WHO frameworks and Universal Health Coverage goals.
4. **Promote evidence-based policy dialogue and multi-sectoral action** to address modifiable risk factors and social determinants of health, supporting progress towards SDG 3.
5. **Identify priority actions and future pathways** for regional and global cooperation in combating lifestyle diseases in the developing world; and foster partnerships and collaborative networks among Member Countries of the NAM S&T Centre and other developing countries to address shared challenges in NCD surveillance, healthcare delivery and health promotion.

Thematic Areas

1. Epidemiology of Lifestyle Diseases in the Developing Nations: Emerging Trends, Regional Patterns and Data Gaps
2. Nutrition Transition and Urbanization: Key Drivers of Metabolic Disorders; Obesity and Diabetes in the Global South
3. Youth, Mental Health and Sedentary Lifestyles: Emerging Public Health Challenges
4. Integrative Approaches to NCD Prevention: Role of Traditional Medicine; Yoga and Community-Based Interventions
5. Health System Strengthening for NCD Control: Surveillance; Early Detection and Equitable Access to Essential Medicines
6. Digital Health and Artificial Intelligence (AI) for Lifestyle Disease Management: Opportunities and Challenges in Low-Resource Settings
7. Women and NCDs: Gender Disparities in Risk Factors, Access to Care and Health Outcomes

Overview of JSSAHERM

JSS ACADEMY OF HIGHER EDUCATION AND RESEARCH, MAURITIUS (JSSAHERM)

The JSS Academy of Higher Education and Research, Mauritius (JSSAHERM) was established in 2018 with degree-awarding powers and is an approved and registered institution with the Higher Education Commission, Mauritius.

JSSAHERM is located on a sprawling eight-acre freehold campus at Bonne Terre, Vacoas, the only one of its kind in the country, including some 15, 000 sq. mts of built- up area with necessary academic, learning, and recreational infrastructure. The campus also comprises of hostels for boy and girl students, sports facilities such as Volleyball, Basketball, Football and in- door games. There are also residential units for staff and guests.

Building on its philosophy of quality education at affordable costs, JSSAHERM aims to present itself as the destination of choice for higher education and training in Mauritius and the Indian Ocean region.

JSS Mahavidyapeetha (JSSMVP), Mysuru, India is the sponsoring society of JSSAHER, Mauritius and JSSAHER Mysuru, India is the mentor institution. More details of JSSAHER Mauritius is available at www.jssaher.edu.mu

Overview of NAM S&T Centre

NAM S&T CENTRE

The Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre; www.namstct.org) is an Inter- Governmental Organisation with a Membership of 47 countries spread over Asia, Africa, the Middle East and Latin America. The Centre was set up in 1989 in New Delhi, India, based on decisions taken during various NAM Summits and mandated to undertake a variety of programmes, indluding organization of conferences, symposiums and training courses and implementation of collaborative S&T projects.

It also offers short-term Research Fellowships to scientists from developing countries in association with the Centres of Excellence in various countries. The Centre also brings out technical books, monographs and other scientific publications in different S&T subjects of interest to developing countries. The Centre's activities provide an opportunity for scientist-to-scientist contact and interactions; familiarizing participants on the latest developments and techniques in the subject areas; identification of the requirements of training and expert assistance; locating technologies for transfer between the Members and other developing countries, and dissemination of S&T information etc. In addition, the Centre encourages Academic R&D-Industry interactions in the developing countries through its NAM

S&T-Industry Network. The Centre is giving special focus on helping the NAM S&T Centre member countries in their capacity building to achieve the UN Sustainable Development Goals – 2030. More details about the Centre are available at www.namstct.org

PROGRAMME AGENDA

Day-0, Wednesday, 13 May 2026

Arrival of Delegates in Mauritius Venue: Royal green Resort, Moka, Mauritius

Day-1, Thursday, 14 May 2026

Mauritian Time (GMT+04 hrs.)	Programme Details
08:30 am – 09:00 am	**Registration**
Opening Ceremony	
09:00 am – 09:10 am	**Welcome Remarks and About the "LSD - 2026" Conference by Prof (Dr) Ashish D Wadhwani**, Head, Faculty of Health Sciences & Dean, School of Pharmacy, JSS Academy of Higher Education and Research, Mauritius
09:10 am – 09:20 am	**Opening Remarks by Dr Amitava Bandopadhyay**, Director General, Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi
09:20 am – 09:30 am	**Opening Remarks and About JSSAHERM by** **Prof (Dr) Praveen Mohadeb**, CEO & Vice-Chancellor, JSS Academy of Higher Education and Research, Mauritius
09:30 am – 09:50 am	**Address by the Chief Guest Dr the Hon Kaviraj Sharma SUKON, Minister of Education, Tertiary Education, Science and Technology**, Republic of Mauritius **And e-release of Conference Booklet**
09:50 am – 10:00 am	**Vote of Thanks by Mr Naveen KP**, Registrar, JSS Academy of Higher Education and Research, Mauritius **Group Photograph**
10:00 am – 10:30 am	**Tea Break and Networking**

10:30 am – 10:40 am	**Prologue** to the Conference **by** **Prof (Dr) H Basavanagowdappa, Vice Chancellor, JSS Academy of Higher Education & Research, Mysuru (Parent Institution of JSSAHER Mauritius) ONLINE**

Technical Session I – Epidemiology of Lifestyle Diseases in Developing Nations	
10:40 am – 11:10 am	**Keynote Speaker 1 -** Osteoporosis as a Neglected Non-Communicable Disease in Developing Countries by **Dr. Lakshmi Nagendra,** Associate Professor, Department of Endocrinology, JSS Medical College, India **[India]**
11:10 am – 11:30 am	**Speaker 1 -** Integrative AYUSH Approaches for NCDs in Developing Countries by **Dr. Palanisamy Dhanabal,** Professor of Pharmacognosy and Principal, JSS College of Pharmacy, Ooty **[India]**
11:30 am – 11:50 am	**Speaker 2 -** Lifestyle Diseases in Kenya: Current Status, Burden, and Future Public Health Challenges by **Dr. Elly Ochieng Munde**, School of Physical and Biological sciences, Tom Mboya University, Kenya [**Kenya]**
11:50 am – 12:10 noon	**Speaker 3 -** Navigating Lifestyle Transitions and Integrative Restoration by Microbiome-Metabolome analysis in Indian Colorectal Cancer Patient by **Dr. Pravinkumar Ranchhodbhai Dudhagara**, Department of Biosciences (UGC-SAP-II), Veer Narmad South Gujarat University, Surat, Gujarat, India **[India] – Online 1**
12:10 pm – 12:30 pm	**Speaker 4 –** Increasing Trends of Chronic Respiratory Diseases in Outpatients Clinic Based on ICD-10 Classification by Sex and Age Group: A Retrospective Analysis, 2019–2024 by **Dr. Kartika Afrida Fauzia,** Researcher, Research Center for Pre-Clinical and Clinical Medicine, National Research and Innovation Agency (BRIN), Indonesia **[Indonesia]**
12:30 pm – 12:50 pm	**Speaker 5 –** Prostate Cancer in Mauritius: Bridging the Genetic Evidence Gap by **Dr Tatsha Chandra Bholah,** Lecturer**,** University of Technology, Mauritius [**Mauritius]**
12:50 pm – 01:00 pm	**Student Paper Presentation 1 -** Patient Counselling and its Impact on Quality of Life of Patients: A Cross-Sectional Study by **Mr Nitin Kumar Busguth,** PhD scholar, JSSAHER **[Mauritius]**
01:00 pm – 02:00 pm	**Lunch Break and Networking**

Technical Session II – Integrative Approaches to NCD Prevention	
02:00 pm – 02:30 pm	**Keynote Speaker 2 –** Advancing the Role of Biodiversity in Biomedicine, Nutraceutical Development, and Public Health in Mauritius by **Dr Vidushi Shradha Neergheen,** Associate Professor, Centre for Biomedical and Biomaterials Research, University of Mauritius, **[Mauritius]**
02:30 pm – 02:50 pm	**Speaker 6 –** Evaluation of antidiabetic potential of Rhododendron arboreum Flower Extract in Experimental Diabetes Mice by **Dr. Deegendra Khadka,** Molecular biologist and Chemist, Senior Scientific Officer, Nepal Academy of Science and Technology (NAST), Khumaltar, Lalitpur, Nepal **[Nepal]**
02:50 pm – 03:00 pm	**Student Paper Presentation 2 –** Antimicrobial Evaluation of Fucoidan Extracted from Mauritian Brown Seaweeds Using Minimum Inhibitory Concentration (MIC) Assay by **Mrs Neelima Sowmya Annavarapu,** PhD scholar, JSSAHERM **[Mauritius]**
03:00 pm – 03:10 pm	**Student Paper Presentation 3 -** An Investigation on Mauritian Endemic Plants and Their Biological Activities: Phytochemical Profiling and Bioactivity Assessment of Hyophorbe lagenicaulis, Dictyosperma album, and Latania loddigesii by **Mrs Tina Dassyne** PhD scholar, JSSAHERM **[Mauritius]**
03:10 pm – 3:20 pm	**Student Paper Presentation 4 -** From Gut to Heart: The Role of Microbial Metabolites in Atherosclerosis in South Indian Population – An Exploratory Study by **Ms Shubhiksha SD,** Department of Pharmacy Practice, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty **[India]**

03:20 pm – 04:00 pm	Panel Discussion on Strengthening Life Style Diseases in Global South
	Panel Experts – Prof. Dr. Praveen Mohadeb [Mauritius] **Dr. Lakshmi Nagendra [India]** **Dr. Kartika Afrida Fauzia [Indonesia]** **Mr. Saiton Murindi [Zimbabwe]** **Dr Vidushi Shradha Neergheen [Mauritius]** **Prof Dr. Balaraj B M [Mauritius]** **Dr. Elly Ochieng Munde [Kenya]** **Moderator: Prof Dr Jaishree Vaijanathappa [Mauritius]**

04:00 pm – 4:15 pm	**Tea Break and Networking**
04:15 pm – 4:35 pm	**Speaker 7 -** Suggestive approach for handling cancer patients during the COVID-19 pandemic: Per-spectives from a developing country on how to adapt current practice by **Dr. Raghad Ghassan Mohammad Tanbour,** Assistant Professor of Internal Medicine, Arab American University of Palestine, **[Palestine]** **Online 2**
04:35 pm – 4:45 pm	**Student Paper Presentation 5 –** Gestational Diabetes Mellitus in Mauritius: A Hospital-Based Cross-Sectional Study by **Dr. Indrajit Banerjee** PhD scholar, JSSAHERM **[Mauritius]**
End of Day 1	

Day-2, Friday, 15 May, 2026

Technical Session III – Youth, Mental health and Sedentary Lifestyles/ Digital health and AI for LSD and Technical Session IV – Nutrition Transition and Urbanisation/ Health system strengthening for NCD Control/ Emerging trends, Metabolic disorders, Obesity and Diabetes in the Global South	
09:00 am – 09:20 am	**Speaker 8 -** Digital Health and AI for Lifestyle Disease Management: Opportunities and Challenges in Low-Resource Settings by **Ts. Dr. Kalaivani Chellappan,** Associate Professor, Department of Electrical, Electronics & System, Faculty of Built & Environment, University Kebangsaan Malaysia (UKM), Selangor, Malaysia **[Malaysia]**
09:20 am – 09:40 am	**Speaker 9 -** TikTok and the fear of missing out: Analyzing social media consumption and mental wellbeing by **Dr Manish Putteeraj,** Senior Lecturer, University of Technology, Mauritius **[Mauritius]**
09:40 am – 10:00 am	**Speaker 10 –** Microbiome-Metabolome Dysbiosis in PCOS among Indian Women: A Multi-Omics Evidence of Lifestyle-Driven Reproductive Health Disruption by **Dr. Shiva Shankaran Chettiar,** Director, Genexplore Diagnostic and Research Centre, Ahmedabad, Gujarat **[India]**
10:00 am – 10:30 am	**Keynote Speaker 3 -** Lifestyle medicine and Lifestyle drugs: Concept and applications by **Mr Sadeck Vawda,** General Manager, UNICORN (MSJ Ltd), **[Mauritius]**
10:30 am - 10:50 am	**Speaker 11 -** Women, Work-Family Balance and Lifestyle Diseases: The Hidden Costs of Urbanization in the Global South by **Dr. (Mrs.) Zareen Beebeejaun-Muslum**, Senior Lecturer and Head Department, Mauritian and Area Studies, Mahatma Gandhi Institute, Mauritius [Mauritius]
10:50 am – 11:00 am	**Student Paper Presentation 6 -** Hypertension in the Elderly Population of Mauritius by **Dr. Praveen Shivchandra Mohadeb,** PhD scholar, JSSAHERM **[Mauritius]**
11:00 am – 11:15 am	**Tea Break and Networking**

11:15 am – 11:35 am	**Speaker 12 -** Mental Health and Non-communicable Diseases: The Role of a Pharmacist by **Professor Rajesh Vagiri**, Associate Professor Division of Pharmacology, Faculty of Pharmacy, Rhodes University, **[South Africa]** **Online 3**
11:35 am – 11:55 am	**Speaker 13 –** Assessing the compliance of sodium levels in packaged foods and beverages sold in East Africa (Kenya, Tanzania and Ethiopia) to WHO global benchmarks by **Mr. Saiton Murindi**, Department of Food Processing Technology, Harare Institute of Technology, Harare, Zimbabwe **[Zimbabwe]**
11:55 am – 12:15 pm	**Speaker 14 -** TikTok, Truth and Treatment: How Digital Health Content Shapes Patient Behaviour in Lifestyle Disease Management by **Professor Varsha Bangalee**, Associate Professor (Pharmacy Practice) Discipline of Pharmaceutical Sciences, College of Health Sciences, University of Kwazulu-Natal, **[South Africa]** **Online 4**
12:15 pm – 12:35 pm	**Speaker 15 –** GLUT4 Polymorphisms and Type 2 Diabetes Risk in People Living with HIV: From Global Systematic Review to Primary Investigation in Lusaka, Zambia by **Mr. John Lumbala Chitoti**, Lecturer, Copperbelt University, Kitwe, Zambia **[Zambia]**
12:35 pm- 12:45 pm	**Student Paper Presentation 7:** The impact of social media on adolescents' psychological well-being by **Ms Nishpa Juggoo** PhD Scholar, Faculty in Health Sciences, JSS Academy of Higher Education and Research, **[Mauritius]** **E-Poster**
12:45 pm – 12:50 pm	**Student Paper Presentation 8 -** An Epidemiological Study on the Prevalence and Assessment of Bone-Related Disorders in Mauritius by **Dr Khayati Moudgil,** Research Scholar, Faculty of Health Sciences, JSS Academy of Higher Education and Research, **[Mauritius]** **E-Poster**
12:50 pm – 01:30 pm	**Lunch Break and Networking**
01:30 pm – 02:00 pm	**"Adoption of Resolution"** on Lifestyle Diseases (LSD) in the Developing World: Perspectives, Current Status and Future Challenges" **Prof (Dr) Ashish Wadhwani,** JSSAHER Mauritius
02:00 pm – 02:15 pm	**Closing Remarks** by Prof (Dr) Praveen Mohadeb, JSSAHER, Mauritius **Feedback and Vote of Thanks from Participants**
End of Day 2	

Day-3, Saturday, 16 May 2026

Departure of Delegates from Mauritius

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Abstracts from Keynote Speakers

INDIA

OSTEOPOROSIS AS A NEGLECTED NON-COMMUNICABLE DISEASE IN DEVELOPING COUNTRIES

Dr. Lakshmi Nagendra
Associate Professor,
Department of Endocrinology, JSS Medical College,
JSS Academy of Higher Education and Research,
Mysore, **INDIA**
Email: drlakshminagendra@gmail.com

Osteoporosis represents a major but under-recognized non-communicable disease (NCD), particularly in developing countries where its burden is rising rapidly with population ageing. Although it leads to fragility fractures, disability, loss of independence and increased mortality, it remains largely overshadowed by traditional NCD priorities such as cardiovascular disease and diabetes. A key paradox is that osteoporosis is both preventable and treatable, yet systematically neglected in policy, funding and clinical practice. In many low- and middle-income settings, it is not identified as a health priority, awareness remains low and access to diagnostic tools such a DXA is limited. The consequences are substantial. Fragility fractures, particularly hip fractures are associated with high morbidity upto 20% in one year mortality, alongside significant economic burden on individuals and healthcare systems. Yet, most high-risk individuals including those with prior fractures remain untreated. This is compounded by limited or absent insurance coverage, absence of comprehensive fracture liaison programs and poor drug adherence. Research inequity further exacerbates the problem. Developing regions contribute disproportionately to global osteoporosis research which limits locally relevant evidence for policy and practice. Addressing the issue of osteoporosis as a neglected NCD requires its integration into national NCD frameworks, improving financial protection through insurance coverage, expanding access to affordable diagnostics and therapies, and scaling up research and fracture liaison services. A shift towards life-course prevention and healthy ageing strategies is essential to reduce the growing burden of osteoporosis in developing countries.

ADVANCING THE ROLE OF BIODIVERSITY IN BIOMEDICINE, NUTRACEUTICAL DEVELOPMENT, AND PUBLIC HEALTH IN MAURITIUS

Vidushi Neergheen

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Worldwide, deaths from non-communicable diseases (NCDs) account for 75% of global mortality (WHO, 2026). This burden is projected to increase further, with the number of NCD deaths exceeding combined deaths from infectious, maternal, neonatal, and nutritional diseases in sub Saharan Africa by 2030 (WHO, 2026). NCDs, including cardiovascular diseases, cancers, diabetes, and chronic respiratory disorders, are closely associated with major behavioral risk factors such as tobacco use, harmful alcohol consumption, unhealthy diets, and physical inactivity, all of which are linked to patterns of urbanisation and economic development. In this context, a strong emphasis on prevention can be envisaged as a central pillar of public health strategies, in line with Sustainable Development Goal 3. The largely untapped potential of indigenous and traditional food plants offers a promising avenue in this regard. Often described as nutraceutical, these resources provide health benefits beyond basic nutrition and form part of an emerging self-care paradigm, complementing conventional medical approaches in both prevention and management of disease. The nutraceutical industry is expanding rapidly, driven by factors such as an aging population, rising healthcare costs, and growing public interest in wellness and preventive care. However, the scientific validation of such products often lags behind market growth, with limited focus on mechanistic efficacy. In Mauritius, consumer interest in nutraceuticals has increased markedly over the last decade. Nevertheless, the local industry is still in its early development stage and remains largely dependent on imported goods. At the same time, the country is home to a wide range of resources, many of which remain underutilised despite their promising nutritional and phytochemical profiles. Thus, an evidence-based research approach is essential to validate their role in disease prevention. In this perspective, this paper examines the scientific relevance and potential of locally grown mushrooms, and fruits in the context of disease prevention.

LIFESTYLE MEDICINE AND LIFESTYLE DRUGS -CONCEPT AND APPLICATIONS

Mr Sadeck Vawda
General Manager
UNICORN (MSJ Ltd)
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Lifestyle medicine is all about using everyday habits as a form of treatment. Instead of relying mainly on medication, it focuses on helping people prevent, manage, and even reverse chronic diseases like diabetes, heart disease, and obesity through changes in how they live. It's built around six key areas: what we eat, how active we are, how well we sleep, how we manage stress, avoiding harmful substances, and maintaining strong social connections.

While traditional medicine often focuses on treating symptoms, usually with drugs, lifestyle medicine takes a step back and looks at the root causes of illness. The goal is simple: improve overall health in a way that can reduce, or sometimes even eliminate, the need for medication.

On the other hand, lifestyle drugs serve a different purpose. These are medications used not to treat serious or life-threatening conditions, but to improve quality of life, appearance, or personal performance. Common examples include drugs for erectile dysfunction like Viagra, hair loss treatments like Minoxidil, weight-loss medications such as Orlistat or GLP-1 drugs, anti-aging treatments like Botox, and smoking cessation aids.

These drugs often sit in a grey area between medical need and personal choice. In some cases, they address concerns that are part of normal human experience, like aging or physical appearance, rather than diseases.

So, while lifestyle medicine is about prevention and long-term health through behaviour change, lifestyle drugs tend to focus on quicker, targeted solutions for specific concerns.

Today, both are becoming more relevant than ever. People are more informed about their health and increasingly interested in preventing disease through better habits. At the same time, there's also a growing demand for solutions that enhance how we look and feel, whether through medication or other means.

Abstracts from Speakers

INDIA

INTEGRATIVE AYUSH APPROACHES FOR NCDS IN DEVELOPING COUNTRIES

Dr. Sankaragoundan Palayam Palanisamy Dhanabal
Professor of Pharmacognosy and Principal,
JSS College of Pharmacy,
Ooty, Tamil Nadu, **INDIA**
Email: spdhanabal@jssuni.edu.in

Introduction

Non-Communicable Diseases (NCDs) pose a significant global health challenge, especially in developing countries where they account for over 85% of premature deaths (ages *3D-69)*. In India, NCDs contribute to approximately 60-66% of all deaths, reflecting a major epidemiological transition driven by urbanization, lifestyle changes, and limited healthcare access. The AYUSH framework-comprising Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy-offers holistic and integrative medical systems that exemplify medical pluralism and hold promise for mitigating NCO risk factors.

Aim & Objectives

This study aims to explore the potential of integrating AYUSH systems with modern medicine for NCD prevention and management. The objectives include: (1) examining the bioactive properties of selected medicinal plants; (2) evaluating the impact of lifestyle interventions such as yoga and naturopathy on NCO risk factors; (3) reviewing integrative healthcare models combining AYUSH and allopathic systems; and (4) identifying challenges related to standardization, dosage variability, and clinical validation.

Methods

A comprehensive review of integrative healthcare models combining AYUSH and modern medicine for NCO prevention and management was conducted. Key components such as standardized herbal formulations, lifestyle interventions including yoga and naturopathy, and conventional treatments were analyzed. A comprehensive model addressing challenges of dosage variability, standardization, and clinical validation was developed to promote synergistic, evidence-based care.

Results

Preliminary findings suggest that AYUSH-based interventions, particularly plant-derived compounds and lifestyle practices, demonstrate potential in modulating key NCO risk factors such as inflammation, metabolic dysfunction, and stress. However, significant challenges remain regarding standardization, quality control, and robust clinical evidence.

Summary

In conclusion, integrating AYUSH with modern medicine offers a promising, culturally relevant strategy for NCO management. Strengthening evidence through rigorous clinical research and standardized protocols is essential for effective-and scalable implementation.

LIFESTYLE DISEASES IN KENYA: CURRENT STATUS, BURDEN, AND FUTURE PUBLIC HEALTH CHALLENGES

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Background: Kenya is undergoing a major epidemiological transition, with lifestyle-related noncommunicable diseases (NCDs) increasing alongside persistent infectious diseases and injuries. Although the population remains relatively young, rapid urbanization, dietary shifts, reduced physical activity, harmful alcohol use, tobacco exposure, and increasing overweight and obesity are accelerating the burden of cardiovascular disease, diabetes, cancer, and chronic respiratory disease.

Objective: To provide current country status overview of lifestyle diseases and major public health challenges relevant to prevention and control in Kenya.

Methods: This country status reviewed recent Kenya-specific evidence from national survey data, WHO country profiles, cancer estimates, diabetes data, and national NCD policy documents. The review focused on demographic transition, mortality, behavioral and metabolic risk factors, and disease burden indicators.

Results: About two-fifths of all deaths in the country are now attributable to NCDs. The probability of premature death from cardiovascular disease, cancer, diabetes, and chronic respiratory disease between ages 30 and 70 is 21%. Hypertension prevalence among adults aged 30-79 years is 33.2%, while adult obesity prevalence is 12.4%. Tobacco use among persons aged 15 years and above is 11.3%. Physical inactivity affects about 14% of men and 17% of women aged 18 years and above, and among adolescents aged 11-17 years it affected 85% of boys and 89% of girls. Overweight has been recorded in 45% of women and 19% of men aged 20-49 years, including 53% of urban women and as high as 65% in Kirinyaga County. In 2025, 813,300 adults were living with diabetes, with 53.6% undiagnosed, and 9,377 attributable deaths were recorded. In 2022, Kenya registered 44,726 new cancer cases and 29,317 cancer deaths.

Conclusion: High hypertension prevalence, rising obesity, physical inactivity, undiagnosed diabetes, growing cancer burden needs stronger multisectoral prevention, earlier detection, improved risk-factor control, and sustained primary health care and national NCD response systems.

Keywords: *Kenya; noncommunicable diseases; lifestyle diseases; hypertension; diabetes; obesity; cancer; public health*

NAVIGATING LIFESTYLE TRANSITIONS AND INTEGRATIVE RESTORATION BY MICROBIOME-METABOLOME ANALYSIS IN INDIAN COLORECTAL CANCER PATIENT

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ONLINE SESSION

Background: Colorectal cancer (CRC) has emerged as a leading public health challenge within the Global South, directly linked to "Westernization" and the nutrition transition. Globally, CRC is the third most common malignancy, with 1.93 million new cases in 2020; this is projected to surge to 3.2 million cases by 2040. In India, the burden is accelerating rapidly, with approximately 65000 new cases recorded in 2022 and projections reaching 0.11 million by 2040. Unlike Western cohorts, South Asian CRC is characterized by a younger age of onset and distinct tumor biology, suggesting unique tumor-host-microbiome interactions shaped by regional lifestyles. As LMICs face rising Mortality-to-Incidence Ratios (MIR), there is an urgent need for population-specific, non-invasive diagnostic and therapeutic strategies with traditional supportive intervention to lengthen the survival rate of patient.

Methods: We conducted a longitudinal multi-cohort study on Indian CRC patients across three stages: baseline (CRCB), post-adjuvant chemotherapy (CRCA), and post-traditional Indian restorative therapy, alongside healthy sibling controls (CRCH). We employed an integrated multi-omics framework using 16S rRNA and Whole-Genome Shotgun (WGS) metagenomics for taxonomic and functional profiling, including antimicrobial resistance (AMR) gene detection. Fecal metabolite profiling via GC–MS was integrated to identify functional metabolic signatures associated with tumor progression and recovery, stratified by age and dietary patterns (vegetarian vs. non-vegetarian).

Results: CRC patients exhibited profound microbial dysbiosis and a significantly higher AMR gene burden (176 genes at baseline). Dietary stratification revealed that vegetarian patients maintained higher microbial diversity and protective SCFA-producing taxa compared to non-vegetarian groups, underscoring diet as a modifiable lifestyle factor. While chemotherapy induced further loss of commensals and inflammatory signaling, traditional Indian supportive therapy facilitated a robust shift toward healthy-like configurations, recovering anti-inflammatory metabolites. Functional analysis identified specific microbial metabolic pathways, such as carcinogen metabolism and amino acid biosynthesis, as high-sensitivity biomarkers for early detection.

Conclusion: This study fills a critical knowledge gap by providing the first integrated multi-omics evidence of microbiome-driven metabolic reprogramming in South Asian CRC. By validating the role of diet and traditional supportive therapies in restoring metabolic homeostasis, this research offers a scalable, cost-effective model for NCD management and precision diagnostics in resource-limited settings across the Global South.

Keywords: *Cancer, CRC, Lifestyle, microbiome*

INCREASING TRENDS OF CHRONIC RESPIRATORY DISEASES IN OUTPATIENTS CLINIC BASED ON ICD-10 CLASSIFICATION BY SEX AND AGE GROUP: A RETROSPECTIVE ANALYSIS, 2019–2024

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Background: Respiratory diseases are major contributors to outpatient healthcare utilization and are strongly influenced by infectious epidemics, environmental exposures, and chronic disease patterns. The COVID-19 pandemic introduced unprecedented shifts in respiratory disease transmission and healthcare-seeking behavior. This study aimed to characterize the trends, age–sex distribution, and temporal changes in outpatient respiratory diagnoses (ICD-10 J00–J99) from 2019 to 2024.

Methods: A retrospective analysis was conducted using outpatient records from Airlangga University Hospital, Indonesia, covering January 2019–December 2024. Diagnoses were grouped into ICD-10 respiratory categories. Descriptive statistics summarized annual counts and demographic patterns. Sex- and age-group distributions were compared using chi-square tests. Temporal trends were evaluated across three major periods (before, during, after COVID-19) and across five epidemiological phases reflecting public-health restrictions. Kruskal–Wallis tests assessed differences in monthly case frequencies of major diagnoses.

Results: A total of 18,862 outpatient respiratory visits were recorded for males and 17,361 for females. Total visits declined sharply in 2020–2021, coinciding with early COVID-19 restrictions, and rebounded strongly after 2022, surpassing pre-pandemic levels by 2024. Asthma was the most common chronic respiratory diagnosis, with consistently higher case counts among females (3–4:1 ratio), while COPD and bacterial pneumonia were dominated by males ≥45 years. Four diagnoses—asthma, unspecified acute lower respiratory infection, viral pneumonia (not elsewhere classified), and bronchiectasis—were consistently among the top outpatient diagnoses and showed significant period effects. Asthma cases increased from a median of 54.0 before COVID-19 to 64.5 after ($p = 2.85\times10^{-5}$). Viral pneumonia showed a pronounced spike during early-pandemic months ($p = 1.68\times10^{-8}$). COPD and bacterial pneumonia decreased sharply during social-restriction phases and resurged post-pandemic. Five-phase timelines revealed a clear suppression–rebound pattern across most respiratory diseases, with notable sex-specific differences.

Conclusions: Respiratory disease patterns shifted markedly during the pandemic, with acute infections suppressed and chronic conditions rebounding afterward. Continued monitoring is needed to support effective respiratory health planning.

PROSTATE CANCER IN MAURITIUS: BRIDGING THE GENETIC EVIDENCE GAP

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Globally, the prevalence and aggressiveness of certain cancers vary considerably across populations. Prostate cancer, in particular, demonstrates striking ethnic disparities: Prostate Cancer UK (2025) reports that approximately one in four Black men are diagnosed with the disease,compared with one in eight men from other ethnic groups. In Mauritius, prostate cancer was the most commonly diagnosed malignancy among men in 2023. Most existing studies on mutation patterns have been conducted in developed countries and largely focus on White European populations, leaving significant gaps in understanding the biological and genetic variations across other ethnic groups. Mauritius, with its diverse population shaped by French, British, Indian, African, and Chinese ancestry, represents a unique genetic landscape. This multicultural composition contributes to a distinct genetic pool, which is reflected in the high prevalence of non- communicable diseases such as cardiovascular diseases, diabetes mellitus, and cancer conditions often associated with genetic predisposition. However, there is a lack of research investigating population-specific genetic markers within the Mauritian context. Identifying these markers is crucial to understanding variations in cancer characteristics and determining the relative contributions of environmental and inherited factors. Such insights are essential for improving targeted prevention, diagnosis, and treatment strategies in this understudied population.

EVALUATION OF ANTIDIABETIC POTENTIAL OF *RHODODENDRON ARBOREUM* FLOWER EXTRACT IN EXPERIMENTAL DIABETES MICE

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Diabetes mellitus is a chronic metabolic disorder characterized by persistent elevated glucose levels and multiple associated complications. The increasing global burden of this disease highlights the urgent need for safer and more effective treatment option. *Rhododendron arboreum* Sm. is a traditionally used medicinal plant rich in bioactive phytochemicals. In this study, the anti-hyperglycemic potential of *R. arboreum* flower extract was investigated using streptozotocin (STZ)-induced diabetic mice. Diabetes was experimentally induced in Swiss Albino Mice through intraperitoneal injection of STZ at a dose of 40 mg/kg body weight followed by oral administration of the plant extract over a specified treatment period. Key parameters such as fasting blood glucose levels and body weight were monitored to assess the therapeutic effects. The extract treatment led to a notable decrease in fasting blood glucose levels reducing from 171.33±4.07 to 120.2±26.63 mg/dL along with improved glucose tolerance compared to untreated diabetic controls. Furthermore, treated animals exhibited a reduction in diabetes-associated weight loss with body weight changing from 31.13 ± 1.5 to 26.8 ±1.10 g. These anti-hyperglycemic effects may be linked to the presence of polyphenols and flavonoids which possess strong antioxidant properties. These properties are responsible for potentially enhancing insulin sensitivity and protecting pancreatic β-cells. Overall, the findings indicate the *R. arboreum* flower extract has significant therapeutic potential and could be considered a promising natural candidate for diabetes management.

Keywords: *Diabetes mellitus, Rhododendron arboreum, STZ induced diabetic mice, Anti-hyperglycemic activity, Body weight*

SUGGESTIVE APPROACH FOR HANDLING CANCER PATIENTS DURING THE COVID-19 PANDEMIC: PER SPECTIVES FROM A DEVELOPING COUNTRY ON HOW TO ADAPT CURRENT PRACTICE

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ONLINE

In late December 2019, a cluster of atypical pneumonia cases was noticed in Wuhan, China, which was later identified as an outbreak of coronavirus disease 2019 (COVID-19). Since then, it has spread globally, causing public health emergency and urgency, and declared as a pandemic by the World Health Organization (WHO). As of 1 April 2020, the data shows more than 200 countries and territories have been affected, with more than 824,000 con-firmed cases and 41,000 deaths. Across the globe, many cancer patients visit the hospital and clinics for treatment and investigations. A large number of this population are immunocom promised, either due to their underlying disease or cancer treatments which put them at higher risk for infection and complications. In addition, several risk factors have been identified that increase the risk and severity of infection with COVID-19, and cancer patients commonly have many of them. Recently, a large retrospective study among cancer patients infected with COVID-19 in Wuhan, China, found a higher incidence of severe events in cancer patients compared to patients without cancer. As doctors working amid this pandemic, we all have responsibilities and duties to act upon local guidelines to ensure the continuation of essential cancer services without overwhelming the health care system. In this review, we addressed the potential challenges and possible actions for clinicians to manage cancer patients during this unusual time.

DIGITAL HEALTH AND AI FOR LIFESTYLE DISEASE MANAGEMENT: OPPORTUNITIES AND CHALLENGES IN LOW-RESOURCE SETTINGS

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The escalating burden of lifestyle-induced non-communicable diseases (NCDs), such as cardiovascular diseases and diabetes, presents a critical public health challenge in the developing world. Managing these chronic conditions require continuous physiological monitoring, proactive intervention, and strict medication adherence capabilities often constrained by limited healthcare infrastructure in low-resource settings. This paper explores the transformative potential of integrating Digital Health Ecosystems and Artificial Intelligence (AI) to address these challenges and revolutionize lifestyle disease management. Central to this technological shift is the deployment of Internet of Things (IoT)-enabled medical devices and mobile health (mHealth) platforms. By leveraging pervasive collaborative networks, cloud-based home environment health monitoring systems facilitate continuous, remote patient observation. Practical innovations, such as patented smart medical storage systems and IoT-integrated medication organizers, directly target the pervasive challenge of treatment non-compliance in chronic disease management. These digital health tools empower patients toward self-managed care while connecting them seamlessly to clinical support. Furthermore, the integration of AI and machine learning significantly enhances diagnostic accuracy and predictive risk modeling. Advanced signal processing techniques, such as deep learning approaches for hypertension classification using non-invasive Photoplethysmography (PPG) signals, enable accessible and early cardiovascular risk screening. Similarly, the application of computerized algorithms and ontology-driven decision support systems transforms raw biomedical data into actionable clinical insights for diabetes and stroke management. While the opportunities for AI and digital health to democratize healthcare access are vast, significant challenges remain, including cyber security, system interoperability, and the digital divide in marginalized communities. By establishing secure, inclusive, and technologically resilient digital health ecosystems, developing nations can transition from reactive clinical treatments to proactive, data-driven lifestyle disease management, ultimately strengthening health systems and mitigating the socio-economic impact of NCD.

TIKTOK AND THE FEAR OF MISSING OUT: ANALYZING SOCIAL MEDIA CONSUMPTION AND MENTAL WELLBEING

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In the context of the COVID-19 pandemic, digital connectivity in Mauritius transitioned from an informational utility to a biopsychosocial necessity, with consequent risks of behavioral dependency. Empirical evidence showed that 91% of Facebook users reported perceived dependency during confinement, reflecting a shift from adaptive information-seeking to maladaptive usage patterns. Within those lines, the rapid uptake of TikTok among younger populations for leisure (73.5%) has normalized prolonged daily engagement (1–3 hours), with adverse mental health correlates linked not to platform use per se, but to excessive consumption. Across both platforms, an "always-on" digital culture was associated with heightened psychological distress, including restlessness, anxiety (reported by 38% of TikTok users), and depressive symptomatology (exceeding 36%). Notably, the Fear of Missing Out (FOMO) emerged as a significant psychosocial driver, affecting 41.7% of users and demonstrating a negative correlation with self-esteem ($r_s = -0.326$), alongside increased anxiety and depressive symptoms. The marked decline in mental well-being further demonstrates the psychological burden of sustained digital immersion, while 'de-isolation recovery' highlights the protective role of physical social interaction. Collectively, these findings position excessive social media use as a salient public health concern, necessitating targeted psychoeducation and the promotion of regulated, context-appropriate digital engagement to mitigate risks of addiction, FOMO, and compromised mental well-being.

MICROBIOME-METABOLOME DYSBIOSIS IN PCOS AMONG INDIAN WOMEN: A MULTI-OMICS EVIDENCE OF LIFESTYLE-DRIVEN REPRODUCTIVE HEALTH DISRUPTION

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Background: Polycystic Ovary Syndrome (PCOS) affects nearly 19.4 million Indian women, with prevalence ranging from 8 to 22% and up to 17.4% in urban youth, reaching 35% in some regions like Kashmir. Driven by lifestyle changes, Indian women show higher insulin resistance and hyperandrogenism, with ~70% remaining undiagnosed, increasing risks of diabetes and infertility. PCOS is now recognized as a microbiome–metabolome disorder, with reduced microbial diversity and altered taxa (e.g., Collinsella, Ligilactobacillus) and SCFA depletion. However, vaginal microbiome–metabolite interactions remain underexplored, necessitating India-specific studies for developing countries.

Methodology: A two-phase multi-omics approach was employed. A pilot 16S rRNA sequencing study (n=7samples) provided preliminary microbial insights. This was followed by comparative shotgun metagenomic analysis across four groups: Married Control (MCON), Married PCOS (MPCOS), Unmarried Control (UCON), and Unmarried PCOS (UPCOS). Vaginal swabs were longitudinally collected and analyzed using EzBioCloud and One Codex pipelines. Microbial diversity and taxonomic composition were assessed. GC–MS-based metabolite profiling was performed to evaluate functional biochemical changes. CST and VALENCIA frameworks were used for ecological interpretation.

Results: Stepwise analysis revealed a clear microbiome shift in PCOS. Healthy controls exhibited low-diversity, Lactobacillus-dominated microbiota, maintaining vaginal homeostasis. In contrast, PCOS groups showed- i. Loss of Lactobacillus dominance (protective species depletion), ii. Enrichment of anaerobic/pathobionts (*Prevotella, Dialister, Veillonella, Corynebacterium*) and iii Increased microbial diversity, indicating instability and dysbiosis. Importantly, dysbiosis was observed in both married and unmarried PCOS groups, confirming a disease-driven microbial alteration, while lifestyle factors influenced its severity. GC–MS analysis provided a functional dimension to this shift, demonstrating reduced lactic acid levels, weakening vaginal defense and altered organic acid and metabolite profiles, suggesting impaired microbial metabolism and increased inflammatory potential. Due to the reduction of microbiota and metabolites PCOS female face the frequent vaginal infection. CST analysis showed a transition from protective CST I to CST III and CST IV states, supported by VALENCIA clustering toward non-optimal microbiome communities.

Conclusion: This study establishes that PCOS in Indian women is characterized by a coupled microbiome–metabolome disruption, where loss of Lactobacillus and reduced lactic acid and Short-chain fatty acids (SCFAs) act as central drivers of vaginal dysbiosis. Given the rising burden of lifestyle diseases in developing countries, these findings highlight the vaginal microbiome as a critical, yet neglected biomarker and therapeutic target. This work provides region-specific evidence essential for precision interventions in women's health across resource-limited settings.

Keywords: *PCOS, Vaginal Microbiome, Metabolomics, Dysbiosis, Women's Health, Lifestyle Diseases*

WOMEN, WORK-FAMILY BALANCE AND LIFESTYLE DISEASES: THE HIDDEN COSTS OF URBANIZATION IN THE GLOBAL SOUTH

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Introduction

Urbanization and nutrition transition have profoundly reshaped health trajectories in the Global South, with women disproportionately bearing the burden of lifestyle diseases such as obesity and Type II diabetes. This paper investigates the intersection of shifting food environments, urban stress and women's dual role in family and professional life, focusing on Mauritius as a case study.

Methodology

Drawing on qualitative interviews with women patients diagnosed with diabetes (n=30), the study explores how household responsibilities, caregiving expectations and workplace demands interact with dietary practices and sedentary lifestyles in Mauritius.

Findings

The findings reveal three critical themes: (1) Nutrition transition and household food practices: women reported increased reliance on processed foods due to time constraints, despite awareness of healthier alternatives; (2) Work-family balance and self-care trade-offs: participants consistently prioritized family dietary needs and caregiving duties over their own medical regimens, leading to poor adherence to lifestyle modifications and (3) Urban stress and psychosocial vulnerability: the pressures of dual roles amplified stress, which participants linked to worsening glycaemic control and weight gain. These insights underscore how gendered social determinants compound metabolic risks in rapidly urbanizing societies.

The study argues that addressing women's vulnerability to lifestyle diseases requires integrative strategies that go beyond biomedical interventions. Policies must incorporate gender-sensitive approaches to nutrition education, workplace wellness, and family-centered health promotion. By situating women's experiences within the broader discourse on urbanization and metabolic disorders, this research highlights the hidden costs of development and calls for multi-sectoral responses aligned with SDG 3 (health) and SDG 5 (gender equality).

Keywords: Urbanization, Nutrition Transition, Women, Work-Family Balance, Diabetes, Global South, Mauritius

MENTAL HEALTH AND NON-COMMUNICABLE DISEASES: THE ROLE OF A PHARMACIST

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Non-communicable diseases (NCDs) account for over 70% of global mortality and remain central to achieving the Sustainable Development Goals and universal health coverage. While traditional NCD frameworks prioritise cardiovascular disease, diabetes, cancer, and chronic respiratory diseases, growing evidence highlights that mental health and addictive disorders constitute a substantial and often under-recognised share of the NCD burden. Severe mental illness is associated with significantly reduced life expectancy, largely driven by cardiometabolic risk factors and metabolic syndrome, further exacerbated by the metabolic adverse effects of commonly prescribed psychotropic medications such as antipsychotics. This underscores the need for integrated approaches that address both mental and physical health within NCD strategies, particularly in low- and middle-income countries where multimorbidity is prevalent, and health systems remain fragmented.

Pharmacists are strategically positioned to contribute to this integrated NCD–mental health agenda due to their accessibility and expanding roles in primary care and community settings. They can support primary prevention through lifestyle and risk-factor counselling, while also delivering key services for individuals with mental illness, including medication reconciliation, psychoeducation, adherence support, and proactive monitoring of metabolic risks associated with psychotropic therapy. Evidence suggests that pharmacist-led, individualised pharmaceutical care can improve both clinical outcomes, such as blood pressure control and patient-reported mental health–related quality of life. Across the continuum of care, pharmacists also contribute to screening, early detection, and the management of drug-related problems, particularly in populations with complex multimorbidity.

However, the implementation of psychiatric pharmaceutical care remains constrained by systemic barriers, including workforce shortages, time limitations, lack of standardised protocols, limited access to medical records, and weak interprofessional communication. In parallel, primary care systems often lack sufficient mental health integration within NCD services, limiting comprehensive management of comorbid conditions. Strengthening pharmacists' roles through targeted training, policy support, and better integration into multidisciplinary teams offers a practical pathway to enhance prevention, early detection, and long-term management of both mental and physical NCDs, particularly in resource-constrained settings.

ASSESSING THE COMPLIANCE OF SODIUM LEVELS IN PACKAGED FOODS AND BEVERAGES SOLD IN EAST AFRICA (KENYA, TANZANIA AND ETHIOPIA) TO WHO GLOBAL BENCHMARKS

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The sustainable development goals recognise non-communicable diseases as a major global health challenge. Excess dietary sodium intake increases blood pressure and consequently increases the risk of cardiovascular diseases, which are the leading cause of death related to non-communicable diseases worldwide. Processed and ultra-processed packaged foods are a major contributor to sodium intake and a target for sodium reduction interventions, which is a cost-effective measure to prevent non-communicable diseases. The research aims to assess sodium levels in packaged food sold in Kenya, Tanzania, Ethiopia, and compliance with world health organisation global benchmarks using data sourced from Mintel's Global New Products Database. An in-store survey was done (January 2020 - December 2024) to collect sodium content data on the nutrition information panels of packaged foods and beverages (n = 7327). Nutrition information panels were systematically collected from the main supermarkets in three countries and sodium levels per 100g/100ml for collected food labels was analysed and compared against the world health organisation global benchmarks. A total of 7327 food products from three countries were assessed. Overall, 'processed meat and poultry' recorded the highest sodium levels, although there was a large variation within food categories and over 50% of products met the sodium per 100g/100ml. Kenya had the highest non-compliance rate of 14.86%, followed by Ethiopia with 13.57% and the least was Tanzania with 11.87%. This study showed that East Africa region has low sodium compliance level. Further efforts are required to reach the world health organisation's global sodium reduction goal, such as implementation of mandatory maximum sodium level limits, front-of-pack labelling regulations, food reformulation, marketing prohibition to children for products exceeding the target and increase media campaign and consumer awareness.

Keywords*: sodium levels, sodium content, salt content, nutrition information panels, processed foods, packaged foods, cardiovascular disease, East Africa*

TIKTOK, TRUTH AND TREATMENT: HOW DIGITAL HEALTH CONTENT SHAPES PATIENT BEHAVIOUR IN LIFESTYLE DISEASE MANAGEMENT

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Introduction. The rapid proliferation of short-form video content on platforms such as TikTok has fundamentally altered the health information environment. Patients with lifestyle diseases including Type 2 diabetes, hypertension, and obesity are increasingly exposed to algorithmically amplified health content before, and often instead of, engaging with healthcare practitioners. With Mauritius recording one of the world's highest rates of Type 2 diabetes (approximately 20% adult prevalence, Mauritius NCD Survey, 2021) **alongside household** smartphone ownership now exceeding 88%, this phenomenon presents an urgent clinical and public health challenge.

Aim and Objectives. This presentation examines (i) the mechanisms by which viral health misinformation spreads and gains credibility, (ii) the specific impact of misleading NCD related content on patient treatment behaviour and adherence, and (iii) evidence-based strategies that healthcare practitioners can deploy within consultation and community settings to counter health misinformation effectively.

Scope. This presentation draws on published peer reviewed literature, documented clinical case patterns, and existing digital health literacy frameworks to explore the intersection of social media misinformation and NCD management. It does not present original research but synthesises current evidence to support practical application in clinical and community settings. The SIFT (Stop, Investigate, Find, Trace) digital literacy framework is introduced as a replicable patient facing tool.

Key Concerns from the Literature. Studies consistently find that a minority of health-related videos on platforms such as TikTok meet standards of clinical accuracy, with quality particularly poor for content related to nutrition, chronic disease management, and medications. Documented harms include diabetic ketoacidosis following metformin discontinuation in favour of social media promoted remedies, hypertensive crises secondary to antihypertensive withdrawal, and supplement induced hepatotoxicity. Evidence from digital health literacy trials suggests that brief structured interventions at the point of NCD diagnosis can meaningfully improve medication adherence, and that pre-emptive patient education against misinformation consistently outperforms reactive debunking.

Summary and Conclusion. Health misinformation on digital platforms constitutes a growing clinical risk for NCD management, particularly in settings where disease burden and digital connectivity both run high. Practitioners who routinely enquire about patients' online health sources, proactively direct them to credible resources, and apply structured literacy frameworks are better positioned to support treatment adherence and patient safety. In a context such as Mauritius, health literacy is not an adjunct to clinical care. It is clinical care.

GLUT4 POLYMORPHISMS AND TYPE 2 DIABETES RISK IN PEOPLE LIVING WITH HIV: FROM GLOBAL SYSTEMATIC REVIEW TO PRIMARY INVESTIGATION IN LUSAKA, ZAMBIA

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Background: People living with HIV (PLHIV) have a higher prevalence of type 2 diabetes (T2DM) than the general population, attributed to antiretroviral therapy (ART), chronic inflammation, and lifestyle factors. The GLUT4 gene (SLC2A4) plays a critical role in insulin-mediated glucose uptake, and polymorphisms in this gene may influence T2DM susceptibility. However, evidence in PLHIV remains poorly synthesized, and critically, no data exist from sub-Saharan Africa – the region with the highest HIV burden.

Objective: First, to systematically review and Meta-analyze the global association between GLUT4 polymorphisms and T2DM risk in PLHIV. Second, to describe how these findings inform an ongoing primary investigation in Lusaka, Zambia, addressing the identified African data gap

Methods – Systematic Review: We searched PubMed, Embase, Scopus, Web of Science, and Google Scholar for studies published between January 2010 and December 2025. Two independent reviewers screened records, extracted data, and assessed study quality using the Newcastle-Ottawa Scale (NOS). A random-effects meta-analysis pooled odds ratio (ORs) for GLUT4 polymorphisms (rs5435, rs5418, and rs222852) and T2DM.

Results – Systematic Review: Of 1,247 records screened, 15 studies met inclusion criteria (4,328 participants). The pooled OR for T2DM associated with any GLUT4 polymorphism was 1.47 (95% CI: 1.19-1.82, $p<0.001$), with stronger associations among PLHIV on protease inhibitor-based ART (OR 1.82, 95% CI: 1.34-2.47). Crucially, no studies from sub-Saharan Africa met the inclusion criteria – a critical geographical evidence gap.

Methods – Primary Research (Zambia): To address this gap, the authors are conducting a cross-sectional study in Lusaka, Zambia, recruiting 428 adults stratified into four groups: HIV+/T2DM+, HIV+/T2DM-, HIV-/T2DM+, HIV-/T2DM-. Data collection includes lifestyle factors (diet, physical activity, smoking, alcohol), clinical metrics (FBG, HbA1c, BP, lipid profiles, BMI, waist circumference), and NGS-based GLUT4 genotyping. Bioinformatics (DESeq2, machine learning) will identify population-specific biomarkers.

Expected Outcomes: Primary Research - This will be the first GLUT4 prevalence data from sub-Saharan African PLHIV. Findings will inform targeted T2DM screening and ART selection in resource-limited settings.

Conclusion: The abstract confirms a significant association between GLUT4 polymorphisms and T2DM in PLHIV globally, but reveals a complete absence of African data. The authors' ongoing PhD study in Zambia directly addresses this gap, generating the first evidence from the region with the world's highest HIV burden.

Keywords: *GLUT4 polymorphisms, HIV, type-2 diabetes, systematic review, Zambia, ART, sub-Saharan Africa, lifestyle diseases*

ANTIMICROBIAL EVALUATION OF FUCOIDAN EXTRACTED FROM MAURITIAN BROWN SEAWEEDS USING MINIMUM INHIBITORY CONCENTRATION (MIC) ASSAY

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Introduction:

Antimicrobial resistance represents a growing global health concern, driving the search for novel bioactive compounds from natural sources. Marine brown seaweeds are rich in sulphated polysaccharides such as fucoidan, which have been reported to exhibit diverse biological activities, including antimicrobial effects. However, the efficacy of fucoidan varies depending on its source, structural characteristics, and extraction methods, necessitating further investigation.

Aim:

This study aimed to evaluate the antimicrobial activity of fucoidan extracted from Mauritian brown seaweeds against selected antibiotic resistant pathogenic microorganisms.

Materials and Methods:

Fucoidan was extracted using hot water extraction followed by ethanol precipitation. Antimicrobial activity was assessed using a resazurin-based Minimum Inhibitory Concentration (MIC) assay in a 96-well microtiter plate.

The test organisms are antibiotics resistant developed organisms and they are *Escherichia coli*, *Staphylococcus aureus* (two strains), *Enterococcus faecalis*, *Pseudomonas aeruginosa*, and *Bacillus cereus*. The extract was tested across a concentration range of 1000 µg/mL to 0.4 µg/mL using serial dilutions. Tetracycline was used as a positive control. Microbial growth was determined based on resazurin colour change (blue indicating inhibition; pink indicating growth).

Results:

The fucoidan extract showed no significant antimicrobial activity against all tested microorganisms across the concentration range. No inhibition of bacterial growth was observed, due to resistance developed against the antibiotics and as indicated by the absence of colour change corresponding to inhibition. In contrast, tetracycline demonstrated expected inhibitory effects, confirming the validity of the assay.

Conclusion:

Fucoidan extracted under the present conditions did not exhibit antimicrobial activity against the selected antibiotics resistant pathogens. This may be attributed to factors such as structural variability and potency of fucoidan against resistant pathogens. Further studies are required to modify the structure by semisynthetic methods and characterize fucoidan derivatives to better understand its biological potential.

THE IMPACT OF SOCIAL MEDIA ON ADOLESCENTS' PSYCHOLOGICAL WELL-BEING: A SCOPING REVIEW

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Background/Introduction

Over the past five years, there has been an exponential increase in the utilisation of technology, the internet, and social media platforms. Teenagers now spend an average of nearly 7.5 hours daily on screens (1). While numerous benefits associated with social media usage have been identified, it is important to acknowledge the various adverse effects that can be detrimental to mental health, such as symptoms of depression and anxiety. Recent literature indicates that high intensity of social media use has raised concerns regarding its negative impact on adolescent mental health (2). Platforms such as Facebook, TikTok, Instagram, and YouTube are predominant, with 35% of teenagers engaging with them multiple times daily, thereby fostering greater digital connectivity and raising significant concerns about mental health, sleep, and behavioural issues.

Objectives/Aims

This study aims to synthesise and systematically map scientific research on the impacts of social media on the psychological well-being of adolescents.

Methods

A scoping review was conducted to provide an overview of and map the existing literature in this field of research. Employing the Arksey and O'Malley scoping review framework, this study adhered to five principal stages: formulating the research question, identifying pertinent literature, selecting appropriate studies, organising the data, and reporting the findings (3). Articles were sourced through the PubMed database and Google Scholar search engine, covering publication years from 2021 to 2025. An initial screening of 20 high-quality articles was performed within a one-day rapid scoping review, utilising the PRISMA-ScR flow diagram in accordance with the inclusion and exclusion criteria, and a critical appraisal following the Joanna Briggs Institute (JBI) guidelines (3). This process ultimately resulted in the selection of eight studies for the final review.

Results

The data were organised in tabular form and summarised according to: Author(s) and Year, Study Title, Aims and Objectives, Country, Data Collection, Participants/Sample, and Results. These were then synthesised into a comprehensive report. Identified trends and gaps were examined thematically to provide a narrative interpretation of existing literature. Three primary themes emerged: social media usage intensity, sleep disturbances, and mental health issues such as stress, anxiety, and depression. The majority of adolescents spend more than three hours daily on social media platforms, chiefly TikTok and WhatsApp (4). Increased usage is associated with a higher incidence of sleep problems and an elevated risk of depression and stress.

Conclusion and Recommendations

Social media exerts a significant influence on adolescent mental health (5). Three specific themes emerged concerning the various factors that contributed to the impact of excessive social media use and adverse mental health outcomes. Future research should aim to better understand the challenges adolescents face as a consequence of excessive social media use and to develop culturally and contextually tailored interventions to mitigate and remediate these effects, using digital literacy education and parental supervision strategies to prevent these negative repercussions.

Keywords

Adolescents, Social Media, Social Networking Sites, Mental Health, Psychological Well-Being

HYPERTENSION IN THE ELDERLY POPULATION OF MAURITIUS

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Background

Mauritius faces one of the highest burdens of non-communicable diseases (NCDs) in the African region. With an aging population, hypertension has become a primary contributor to cardiovascular mortality, which accounts for nearly 89% of all deaths in the country (Musango et al., 2020). While national prevalence remains approximately 35%, the impact on the elderly (aged 55+) is disproportionately high, with more than 50% of this demographic being hypertensive (Söderberg et al., 2025).

Objectives

To assess the prevalence and management challenges of hypertension among the elderly in Mauritius and evaluate the potential for standardizing care through protocols such as those established by the India Hypertension Control Initiative (IHCI).

Methodology

Data were synthesized from the Mauritius NCD Survey (1987–2021) and recent epidemiological reviews (Söderberg et al., 2025). Management strategies were cross-referenced with IHCI protocols, which emphasize standard, drug- and dose-specific treatment regimens (Kaur et al., 2023; Kunwar et al., 2023).

Results

- Prevalence and Risk: Hypertension prevalence in Mauritius increases sharply with age, reaching 58.0% to 69.2% in those aged 65 and older (Söderberg et al., 2025). Specific predictors include high salt intake and Creole ethnicity (Kowlessur et al., 2018).
- Management Gaps: Despite high awareness and screening, achieving target blood pressure control is hindered by suboptimal medication adherence and health system challenges (Musango et al., 2020; Schutte et al., 2022).
- Protocol-Based Solutions: The IHCI model offers a robust framework for improving control rates through five core strategies: protocol-based care, uninterrupted drug supply (specifically Amlodipine, Telmisartan, and diuretics), task sharing, patient-centered services, and cohort-based monitoring (Kaur et al., 2023; Kunwar et al., 2023). Implementing such standardized protocols can simplify clinical decision-making and streamline drug procurement (Marklund et al., 2025).

Conclusion

The high prevalence of hypertension among elderly Mauritians necessitates a transition from opportunistic screening to standardized, protocol-driven management. Adopting IHCI-style frameworks—emphasizing simplified drug regimens and consistent follow-up—is essential to reduce cardiovascular events in this vulnerable population.

AN EPIDEMIOLOGICAL STUDY ON THE PREVALENCE AND ASSESSMENT OF BONE-RELATED DISORDERS IN MAURITIUS

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Background: Skeletal health is a fundamental pillar of overall physical well-being, providing essential structural support, protecting vital organs, and acting as a reservoir for critical minerals. Despite its importance, bone disorders—often termed "silent diseases"—are a growing global public health concern, leading to significant disability, chronic pain, and humanistic burden.

Problem Statement: In Mauritius, a rapidly aging population combined with lifestyle shifts—such as increased consumption of processed foods, physical inactivity, and high rates of smoking—has elevated the risk for bone-related conditions. However, there is a critical paucity of epidemiological data regarding the true prevalence and specific risk factors within the Mauritian population, which hinders the development of targeted health policies.

Methodology: Following approval from the National Ethics Committee (NEC), this study employs a cross-sectional research design among adults aged 18 years and above in Mauritius. To date, 151 samples have been successfully collected from confirmed affected individuals. The data collection process is currently ongoing to ensure a robust and comprehensive dataset.

Objectives: The primary aim is to bridge existing research gaps by determining the prevalence of various bone disorders and identifying associated socio-demographic, nutritional, and lifestyle factors. Furthermore, the study seeks to develop a context-specific educational tool to improve health literacy and provide evidence-based policy recommendations.

Significance: The findings from this ongoing research will provide the necessary data for policymakers to establish healthcare priorities and implement tailored public health education strategies to mitigate the rising burden of bone diseases in Mauritius.

AN INVESTIGATION ON MAURITIAN ENDEMIC PLANTS AND THEIR BIOLOGICAL ACTIVITIES: PHYTOCHEMICAL PROFILING AND BIOACTIVITY ASSESSMENT OF HYOPHORBE LAGENICAULIS, DICTYOSPERMA ALBUM, AND LATANIA LODDIGESII

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Mauritius, a globally recognized biodiversity hotspot, harbors a wealth of endemic plant species with untapped potential for natural product–based drug discovery. Despite this, Mauritian endemic palms remain largely underexplored from a phytochemical and pharmacological perspective. This study investigates the biological potential of three endemic palm species—Hyophorbe lagenicaulis (Bottle Palm), Dictyosperma album (Hurricane Palm), and Latania loddigesii (Blue Latan Palm)—with a focus on identifying bioactive secondary metabolites of therapeutic relevance. Plant materials were collected and authenticated, followed by extraction using alcoholic and aqueous solvents to obtain a broad spectrum of phytoconstituents. Preliminary phytochemical screening revealed the presence of key bioactive classes, including phenolics, flavonoids, alkaloids, tannins, and saponins. Biological evaluation demonstrated notable antimicrobial activity across selected extracts, alongside sterile egg-based assays indicating preliminary insights into toxicological effects and safety profiles. These findings highlight the potential of Mauritian endemic palms as promising sources of biologically active compounds. Ongoing investigations include antioxidant, cytotoxic, and enzyme inhibitory assays, complemented by bioactivity-guided fractionation to isolate and characterize active constituents. This work provides one of the first systematic evaluations of these endemic palm species, contributing to the growing body of evidence supporting biodiversity-driven drug discovery. Furthermore, it underscores the importance of conserving endemic flora while advancing their scientific and pharmaceutical applications.

PATIENT COUNSELING AND ITS IMPACT ON QUALITY OF LIFE OF PATIENTS: A CROSS-SECTIONAL STUDY

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This cross-sectional study explores the impact of patient counseling on the quality of life of individuals within pharmacy settings. Patient counseling, rooted in psychological principles rather than compulsory medication, positions pharmacists as vital contributors to mental health and wellbeing. The research emphasizes the pharmacist's role as counselor, aiming to reduce distress, promote resilience, and facilitate positive behavioral change. Objectives include examining counseling practices in community pharmacies, addressing ethical and professional issues such as confidentiality and competence, and conducting qualitative interviews with both pharmacists and patients. Methodologically, the study integrates diverse counseling approaches—psychotherapy, cognitive-behavioral therapy, humanistic therapy, and solution-focused therapy—while employing questionnaires to capture perspectives from stakeholders. Expected outcomes highlight the importance of counseling psychology in pharmacy, demonstrating its potential to enhance patient mental health and overall quality of life. The findings are anticipated to inform the development of practical counseling guidelines, training modules, and policy recommendations, thereby strengthening the pharmacist's role as a bridge between healthcare and psychology. Ultimately, this research underscores the adaptability and competitive edge of pharmacy practice when counseling is integrated, reinforcing pharmacists' position as leaders in holistic patient care.

FROM GUT TO HEART: THE ROLE OF MICROBIAL METABOLITES IN ATHEROSCLEROSIS IN SOUTH INDIAN POPULATION – AN EXPLORATORY STUDY

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Introduction: The gut is often referred to as the second brain or second genome, but gut microbiota derived metabolites play an important role in cardiovascular homeostasis, with trimethylamine-N-oxide (TMAO) increasingly implicated in atherogenesis.

Aim and Objectives: The study was conducted to assess the level of TMAO expression and atherosclerotic plaque formation in South Indian Cohort and to validate and assess TMAO as a biomarker for atherosclerosis.

Methodology: The prospective exploratory study was conducted at JSS Hospital, Mysuru, focusing on the South Indian population. The study was carried out with 55 participants, and the demographic variables, dietary patterns, alcohol consumption, and smoking status were documented systematically. Plasma TMAO concentrations were collected, and statistical analysis was performed using IBM SPSS Statistics for Windows, Version 26.0.

Results: The plasma TMAO levels with a mean concentration of 4.85 ± 0.84 µM, supporting the use of non-parametric analytical methods. Spearman's rank correlation analysis demonstrated no significant association between TMAO levels and age ($\rho = -0.025$, $p = 0.857$), similarly Mann Whitney U test revealed no statistically significant difference between males and females ($U = 440.5$, $p = 0.115$). In multivariable linear regression analysis, the presence of comorbidities emerged as a strong independent predictor of elevated TMAO levels ($\beta = 2.30$, $p < 0.001$), while alcohol use and non-vegetarian diet were independently associated with higher TMAO concentrations ($\beta = 0.58$, $p = 0.036$). In contrast, age ($p = 0.539$), male gender ($p = 0.253$), and smoking status ($p = 0.580$) did not show significant independent associations.

Conclusion: These findings reinforce the relevance of the gut–heart axis and indicate that TMAO may serve as a biomarker for atherosclerotic risk stratification. The study also paved the way for personalized dietary and microbiome-targeted strategies to improve cardiovascular health to benefit the patients and researchers.

Keywords: Atherosclerosis, TMAO, Gut Microbiome, Biomarker

GESTATIONAL DIABETES MELLITUS IN MAURITIUS: A HOSPITAL-BASED CROSS-SECTIONAL STUDY

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Introduction: Mauritius is among the countries with the highest disease burden globally in diabetes mellitus (DM), ranking twelfth in terms of disease impact. There is a dearth of data and research on gestational DM (GDM) in Mauritius.

Aim and Objective: This study aimed to determine the sociodemographic details, the prevalence, risk factors, and assess maternal and fetal/neonatal complications of GDM in Mauritian women.

Methods: A cross-sectional study was conducted on pregnant women diagnosed with GDM at Dr. A. G. Jeetoo Hospital, Port Louis, Mauritius, from September 2019 to February 2020.

Results: The prevalence of GDM was found to be 16% in Mauritius. The mean age of GDM patients was 27.90 ± SD 5.998 years. Most of the patients were housewives (97, 52.2%), and the common treatment offered to GDM patients was dietary modification (160, 86%), followed by insulin therapy (16, 8.6%). Preterm delivery was the most common type of maternal complication, followed by recurrent urinary tract infection and gestational hypertension. Neonatal complications were present in 60 (32.3%) of the patients. The most common neonatal complication was low birth weight (LBW), followed by hypoglycemia and jaundice.

Summary and Conclusion: GDM may cause significant maternal and neonatal complications. This study bridges the existing knowledge gap by determining the prevalence of GDM in Mauritius and identifying the risk factors specific to Mauritian women.

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Dr. Lakshmi Nagendra is an Associate Professor in the Department of Endocrinology at JSS Medical College and a consultant endocrinologist specializing in hormonal disorders, diabetes, obesity, metabolic bone diseases, and endocrine research.
Key expertise areas include:

- Diabetes and metabolic disorders
- Obesity and weight-management endocrinology
- Osteoporosis and metabolic bone disease
- Hormonal health including women's endocrine health
- Endocrinology education and career development
- Clinical research and endocrinology training pathways

She has also established a Bone Clinic focusing on osteoporosis and metabolic bone disorders,
indicating strong involvement in women's bone health and endocrine care.
Her research and conference discussions often cover:

- Advances in endocrinology and diabetes management
- Metabolic diseases
- Bone health and osteoporosis
- Endocrinology career pathways
- Clinical endocrinology updates and evidence-based practice

From her work and research areas, her talks commonly revolve around:

1. Endocrinology and metabolic health
2. Diabetes and obesity management
3. Osteoporosis and bone health
4. Hormonal health and women's health
5. Career development in endocrinology
6. Clinical decision-making and medical professionalism
7. Women in medicine and leadership

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Dr. Vidushi Neergheen spearheads research initiatives at the Biopharmaceutical Unit within the Centre for Biomedical and Biomaterials Research at the University of Mauritius, Mauritius. Her work focuses on the integration of biopharmaceuticals, nutraceuticals, and functional foods to advance innovative and preventive healthcare solutions.

Dr. Neergheen's research centers on exploring nutraceuticals derived from indigenous resources, with the aim of addressing major health challenges such as diabetes, cancer, cardiovascular diseases, and cognitive impairments. Her work emphasises the transition to microphysiological systems in nutraceutical research, a pivotal shift that enhances the precision and relevance of scientific investigations. These advanced systems provide critical insights into bioavailability, metabolism, and efficacy, reducing the reliance on animal models and focusing on human-relevant applications. This approach enables the development of safer and more effective nutraceutical products tailored to specific health needs.

In recognition of her exceptional contributions to cancer research, Dr. Neergheen was awarded the prestigious Best African Woman Researcher Award at the UNESCO-Merck Africa Research Summit in 2017. A strong advocate for scientific collaboration and knowledge dissemination, she is actively involved in global scientific networks such as the Global Young Academy, the Next Einstein Forum, the African Science Leadership Program, the International Science Council and more recently of the African Academy of Sciences. Additionally, she is a member of the Society for Advanced Cell Culture Modelling for Africa, further underlining her commitment to advancing science in Africa and beyond.

Dr. Neergheen also serves as the Director of the Doctoral School at the University of Mauritius. Within this capacity, she actively advocates for and supports doctoral students and post-doctoral fellows, fostering an environment conducive to advanced research pursuits.

Mr Sadeck Vawda
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Mr. Sadeck Vawda is a distinguished pharmacist and healthcare professional with over three decades of experience in the pharmaceutical and healthcare sector in Mauritius. He obtained his Bachelor of Pharmacy (Honours) degree from the University of Nottingham, United Kingdom in 1989 after completing his Higher School Certificate at the Royal College of Port Louis with distinction in Chemistry, Physics, and Mathematics.

He is a Member of the Royal Pharmaceutical Society of Great Britain (MRPharmS) since 1990 and a Member of the Royal College of Pharmacy, United Kingdom. Mr. Vawda began his professional career as a Pre-registration Trainee at King's Mill Hospital, United Kingdom before returning to Mauritius, where he served as Pharmacist in Charge at Pharmacy Atchia Ltd.

Since joining UNICORN (MSJ Ltd) in 1995, he has held several leadership positions including Training Manager, Sales and Marketing Manager, and currently serves as the General Manager. Under his leadership, he has significantly contributed to the advancement of pharmaceutical services and healthcare initiatives in Mauritius.

Mr. Vawda has actively contributed to the professional development of pharmacists and healthcare professionals through his involvement in Continuous Medical Education (CME) and Continuous Professional Development (CPD) programmes. He has been a speaker at numerous pharmaceutical and medical conferences and is an approved CPD speaker for both the Medical Council and Pharmacy Council.

He has also served in several important professional and regulatory capacities, including as an Ex-Member of the Pharmacy Board, Committee on Health Supplements, and Clinical Trials Research Council. Additionally, he served as an Executive Member of the Pharmaceutical Association of Mauritius (PAM) and the Fédération des Pharmaciens de l'Océan Indien (FPOI). From 2014 to 2018, he served as President of the "Congrès des Pharmaciens Francophone Océan Indien."

Mr. Vawda is also recognized for his academic and professional achievements, including receiving the "College of Pharmacy Practice Prize for Final Year Students" for his outstanding project in Clinical Pharmacy titled "Asian Traditional Medicines."

With his extensive experience, leadership, and commitment to healthcare advancement, Mr. Sadeck Vawda continues to play a significant role in strengthening pharmaceutical practice and healthcare delivery in Mauritius and the region.

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Dr. Pravin Dudhagara is an Assistant Professor in the Department of Biosciences at Veer Narmad South Gujarat University (VNSGU), Surat, with over 17 years of expertise in microbiology and biotechnology. His research is at the forefront of public health, focusing on the human gut microbiome, cancer microbiomes, and antimicrobial resistance (AMR). Notably, Dr. Dudhagara was instrumental in the regional response to the global pandemic, establishing an ICMR-approved RT-PCR laboratory in 2021 that processed over 25,000 patient samples and 1,200 sewage samples for SARS-CoV-2 detection and work with INSACOG, DBT, GoI for the Variant detection.

An accomplished scholar, Dr. Dudhagara has published approximately 50 research papers in international peer-reviewed journals, earning more than 1,000 citations and an H-index of 17. His research leadership is further evidenced by his role as a Principal and Co-Investigator on projects funded by major agencies, including DBT, DST, GSBTM, UGC, and INSACOG. He has successfully guided three Ph.D. students, with three others currently under his supervision, and has mentored several innovation projects under the Student Start-up and Innovation Policy (SSIP).

Beyond the laboratory, Dr. Dudhagara is a vital academic administrator, serving as the Coordinator for the M.Sc. Microbiology and PGDMLT programs. As Vice President of the Institutional Innovation Council and Secretary of the university's incubation company, he actively fosters a culture of entrepreneurship. His commitment to internationalization is reflected in his facilitation of several MoUs with universities in Mexico, Taiwan, and Indonesia to enhance faculty and student mobility. A recipient of prestigious fellowships from ICGEB and FAOBMB, he maintains active memberships in the American Society for Microbiology and the Society of Biological Chemists (India), striving to bridge the gap between academic innovation and societal benefit.

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Dr.S.P.Dhanabal is a Professor of Pharmacognosy & Phytopharmacy and Principal at the JSS College of Pharmacy, Ooty, The Nilgiris, Tamilnadu, India.

His education includes, Diploma in Pharmacy (1984) from Coimbatore College of Pharmacy, Bachelor's & Master of Pharmacy degrees from JSS CP, Ooty (1985-1991) and PhD from University College of Pharm. Sciences, Kakatiya University, Warangal, Andhra Pradesh (2014).

He has 35 years of teaching and research experience in the fields of Pharmacognosy & Phytopharmacy and as Head of Institution for the past 12 years. He has received financial grants of more than Rs. 1.50 Crore towards research grants from both national and international agencies.

Guided 17 Ph.D Dissertations, 33 Postgraduates projects. Also 8 African scientists under DST-FICCI CV Raman / NAM S&T, RTF-DCS / TATA ISTA JRD fellowships carried part of their research under his guidance. He has delivered 22 invited lectures, made more than 150 presentations across the globe in conferences/workshops/Seminars and published 155 peer-reviewed articles (85 International and 70 National) and they were well cited.

He was a Member of Scientific Services Committee at the 62nd to 74th Indian Pharmaceutical Congress. Also serves as an Executive Council member in apex bodies both national and international viz., Hoodia Advisory Committee, DST, South Africa, Indian Pharmaceutical Association, Indian Pharmacognostical Society, Association of Pharm. Teachers of India.

He has visited several overseas universities for scientific collaborations viz.,

Rutgers University, New Jersey '; Howard University, Washington, University of Maryland, USA
Univ. of London, University of Westminster, Swansea University, UK
Univ. of Pretoria, South Africa
RAK Medical & Health Sciences University, UAE
Univ. of Bonn, Germany
Univ. of Newcastle, University of Sydney, Australia
National University of Singapore, Singapore
Masterskill and AIMST University, Malaysia
Univ. of Leuven, Belgium
Univ. of Manitoba, Canada
Univ. of Colombo, Sri Lanka.

Acted as an Indian Coordinator for the "International Conference on Indigenous Knowledge System 2013 (Theme : The value of Indigenous knowledge in 21st century)" hosted by DST, South Africa in collaboration with North-West University (17-20th Apr 2013).

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Dr. Shiva Shankaran Chettiar is a clinical genomics professional and an active contributor to the field of lifestyle disorder genomics and reproductive genetics, with extensive experience in molecular diagnostics and precision medicine. He is associated with Genexplore Diagnostics and Research Centre Pvt. Ltd., where he serves as founder director and plays a key role in advancing genomic solutions for assisted reproductive technologies (ART), Oncology, Neurology and Lifestyle related disorders with its clinical applications.

With over a decade of experience in clinical genomics, Dr. Chettiar has been instrumental in supporting clinics across multiple regions, including South Asia, the Middle East, and Africa. His work focuses on integrating advanced molecular techniques such as next-generation sequencing (NGS), PCR-based diagnostics, and multi-omics approaches to improve clinical outcomes. He has contributed to the successful delivery of preimplantation genetic testing services, including whole exome sequencing, whole genome sequencing, DNA methylation based studies and predictive genomics benefiting thousands of patients.

Dr. Chettiar's expertise extends to emerging areas such as microbiome analysis, metabolomics, and bioinformatics-driven diagnostics, with a particular interest in translating complex genomic data into actionable clinical insights. He is actively involved in research and scientific collaborations, with a focus on lifestyle-driven disorders and reproductive health, including conditions such as PCOS.

Committed to continuous learning and innovation, Dr. Chettiar regularly engages in scientific forums and contributes to knowledge dissemination in the field of molecular diagnostics. He has delivered talks and held workshops which have benefited many clinicians, scientists and patients. His work aims to bridge the gap between advanced genomic science and real-world clinical practice, enabling personalized and evidence-based healthcare solutions.

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Dr. Kartika Afrida Fauzia is a physician–scientist and researcher at the National Research and Innovation Agency, where she works at the interface of clinical medicine, epidemiology, and molecular research. Trained as a medical doctor and researcher, she completed her doctoral studies in Japan and has been involved in several collaborative projects examining disease patterns in Asian populations.

Although her scientific background includes infectious disease research, Dr. Fauzia's work increasingly focuses on the broader determinants of chronic disease in developing countries, particularly how biological, environmental, and lifestyle factors interact to influence long-term health outcomes. Her research interests include chronic gastrointestinal diseases, inflammation-related conditions, and the population health impact of microbial exposures and lifestyle changes during epidemiological transition.

Working in Indonesia—a country experiencing rapid demographic, dietary, and socioeconomic transformation—Dr. Fauzia is interested in understanding how these transitions influence the growing burden of non-communicable diseases. Her work integrates clinical data, molecular approaches, and population-level perspectives to explore how chronic inflammation, microbiome changes, and environmental exposures contribute to disease risk.

As one of the physician researchers at National Research and Innovation Agency, she is particularly interested in bridging biomedical research with clinical and public health perspectives. Her goal is to contribute to interdisciplinary approaches that improve the understanding and prevention of chronic diseases in developing countries.

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Dr. Elly Ochieng' Munde is a Kenyan academic, medical geneticist, and biomedical researcher with more over twelve years of experience in university teaching, research, mentorship, and capacity strengthening. He currently serves as Director of the Directorate of Postgraduate Studies at Tom Mboya University and as a Senior Lecturer in the Faculty of Biological and Physical Sciences. His academic training includes a BSc in Biomedical Science and Technology, an MSc in Human Genetics, and a PhD in Medical Genetics from Maseno University, alongside postdoctoral training in infectious disease through the University of New Mexico–KEMRI Program and the HBNU Global Health Fellows Consortium.

Dr. Munde's scholarship spans medical genetics, molecular epidemiology of non-communicable disease. His work has contributed to the understanding of severe malarial anemia, host genetic susceptibility, molecular surveillance of noncommunicable disease, and diagnostic challenges in high-burden settings. He has authored numerous peer-reviewed publications, presented at international scientific conferences, and supervised postgraduate research across clinical medicine, and molecular biology.

In addition to his work in infectious disease research, Dr. Munde has also engaged in studies on lifestyle diseases and broader population health concerns, including nutritional health, health service utilization, and community-level determinants of wellbeing. As Principal Investigator, he secured and led a Bill & Melinda Gates Foundation Grand Challenges Explorations grant on molecular surveillance of pfhrp2/3 deletions in western Kenya. He has also provided consultancy and evaluation services to organizations such as Amref-Kenya, Christian Aid, GIZ, and KTN Global Alliance Africa. Through his teaching, research leadership, and interdisciplinary collaborations, Dr. Munde remains committed to advancing scientific knowledge, strengthening postgraduate scholarship, and promoting research-informed solutions to public health challenges in Africa.

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Associate Professor Ts. Dr. Kalaivani Chellappan has orchestrated a distinguished 29-year trajectory, bridging industrial-grade instrumentation and high-stakes clinical healthcare. Her evolution from an engineer at Esso Production Malaysia to a preeminent academic at Universiti Kebangsaan Malaysia (UKM) defines her mastery of Digital Health Architecture. By synthesizing biomedical signal processing with industrial IoT infrastructure, she has pioneered the application of systems dynamics and knowledge modeling to address complex cardiovascular and neurological pathologies, translating engineering precision into transformative medical solutions.

Her research portfolio converts theoretical frameworks into protected assets, notably through her 2009 breakthrough utility innovation in non-invasive vascular risk prediction. With over 15 intellectual properties, including patents for Remote EEG Monitoring and the Smart Medical Storage System, which earned her a 2023 MyRA Performance Excellence Award, she solves critical clinical problems. A prolific thought leader, Dr. Kalaivani has published over 100 journal articles and 25 original books and chapters, establishing her authority in cardiovascular engineering and systems dynamics modeling.

Dr. Kalaivani's influence extends to national policy and global leadership. She served as Head of the TVET Training Quality Improvement Working Committee for the Ministry of Human Resources and as a Healthcare Engineering Consultant for the National Institute of Health. Internationally, her standing is highlighted by fellowships in India and Spain and her role as General Chair for the 9th International Symposium on Women in Computing and Informatics (WCI'23), where she facilitated global IR 4.0 integration.

As architect of the Graduate Competency Empowerment Centre (PKAS), recipient of the 2023 OpenGov Recognition of Excellence, she is a catalyst for human capital development. This work, alongside her New York Academy of Sciences mentorship, empowers the next generation of technologists. Dr. Kalaivani's techno-entrepreneurial vision continues to architect resilient and technologically advanced healthcare futures, integrating IR 4.0 technologies to enhance clinical precision and societal wellbeing.

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Dr. Deegendra Khadka received his PhD from Inha University, South Korea, in 2012. He is currently working as a senior scientific officer at the Nepal Academy of Science and Technology (NAST) and previously worked as a visiting faculty at the Central Department of Chemistry, Tribhuvan University, Nepal (2013-2018). His research expertise includes molecular biology, enzymology, and in vivo studies using animal models for diabetic and obesity drug development which was the primary focus of his PhD works.

Dr. Khadka 's research focuses on the growing burden of lifestyle-related non- communicable disease, particularly diabetes and obesity in developing countries. He has conducted extensive studies on the antidiabetic and anti-obesity potential of medicinal plant extracts using both *in vitro* enzyme inhibition assays and *in vivo* mice models. His work aims to scientifically validate traditional medicinal resources and develop affordable therapeutic strategies suitable for low- and middle-income settings. His research interests also include molecular docking, gene cloning, and recombinant protein expression for drug discovery and mechanistic insights.

He has published more than 30 research articles in national and international journals and contributed several book chapters with reputed publishers. Dr. Khadka is actively involved in academic writing, mentorship of graduate students and collaborative research including participation in initiatives such as the NAM S & T Fellowship 2024. His research addresses current challenges and future perspectives in managing lifestyle diseases. Through His multidisciplinary approach, he contributes to advancing sustainable solution for diabetes and obesity in the developing world.

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Dr. Raghad Tanbour is an Assistant Professor of Internal Medicine at the American Arab University of Palestine and an Internal Medicine Specialist with extensive experience in clinical care, medical education, and research. She previously served as a Hematology/Oncology Hospitalist at An-Najah National University Hospital, where she managed complex oncology and bone marrow transplant patients and worked closely with multidisciplinary teams to improve patient outcomes. Her earlier work also included primary care practice, academic lecturing, residency training in internal medicine, and research and teaching support within university medical programs. Dr. Tanbour holds an M.D. from An-Najah National University and is board-certified in Internal Medicine. Her academic and teaching portfolio includes curriculum development, student mentorship, and coordination responsibilities in Internal Medicine, Introduction to Medicine, Neurology, Psychiatry, and Radiology. She also carried journal club responsibility throughout four years of residency and serves as a member of a scientific research committee, reflecting her ongoing engagement with evidence-based practice and academic leadership. Her scholarly interests focus on internal medicine, oncology, critical care, and public health in Palestine. She has contributed to peer-reviewed research on intensive care mortality, sepsis, COVID-19 and cancer care, and genetic disorders, in addition to case reports and country-relevant clinical analyses. Dr. Tanbour has further strengthened her professional profile through specialized training, including ICU and communication courses in 2019, HP-KITT and OSCE-related training with the University of Dundee, and the ChatGPT-EDU course. Through conference participation, she aims to share clinical and academic insights from Palestine while engaging in meaningful international exchange.

Dr Manish Putteeraj
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Dr. Manish Putteeraj is an academic and researcher specializing in the intersection of molecular biology and behavioral neuroscience. After graduating with First Class Honors in Medical Bioscience, he earned his PhD in Neuroscience from the Brain Research Institute Monash Sunway (BRIMS) at Monash University in 2016. His research career is characterized by an investigation into the molecular mechanisms of timed-regulatory systems (circadian biology) and how external determinants influence behavioral responses. Dr. Putteeraj integrates advanced expertise in neurobiology, neuro-endocrinology, and circadian biology. His technical proficiency encompasses molecular and cellular biology, featuring immunohistochemical techniques, cellular imaging, and in vivo quantification, supported by specialized laboratory training in rodent handling, dissection, and SPF facility operations. Currently serving as a Senior Lecturer at UTM's School of Health Sciences, Dr. Putteeraj focuses on bridging the gap between social sciences and behavioral neuroscience to address mental and public health challenges. His passion in research and empowering students in their academic journey has led to a number of impact factor publications with the most recent one being the benefits of exercise referral as a potent factor slowing down the adverse effects of non-communicable diseases such as diabetes and hyperlipidemia. Dr. Putteeraj has spearheaded high-impact national initiatives as a consultant for the Mauritius Sports Council, notably co-leading the development of athlete-oriented performance nutrition strategies and the evaluation of the "Exercise Referral" project designed to combat non-communicable diseases like diabetes and hyperlipidemia. This work on preventative health and metabolic management is supported by his peer-reviewed research in the Journal of Public Health. Furthermore, his leadership in public safety includes collaborating with the Mauritius Research and Innovation Council (MRIC) on the development of protective equipment for essential workers during the COVID-19 pandemic, a period during which he also investigated digital health adoption and mental well-being in journals such as International Health and Discover Psychology.

Dr (Mrs) Zareen Beebeejaun Muslum
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Dr. (Mrs.) Zareen Beebeejaun-Muslum is a Senior Lecturer and Head Department, Mauritian and Area Studies at the Mahatma Gandhi Institute, Mauritius. She is a Post-Doctoral Fellow and holds a PhD in Sociology from the Open University of Mauritius, a Master's in Social Psychology from the University of Mauritius, a postgraduate Honours BA in Sociology from the University of South Africa, and a BSc in Social Science with specialization in Sociology from the University of Mauritius. With over twenty years of teaching experience at undergraduate and postgraduate levels, she has lectured extensively in Sociology, Social Psychology, and Anthropology.

Her research focuses on gender inequality in education, structural barriers to women's access to higher education and STEM fields and the social impact of chronic illnesses such as Type II Diabetes. She has conducted post-doctoral research on gender-based violence amid the Covid-19 pandemic and has collaborated on the book *Achieving Work-Family Balance among Professional Working Women in Mauritius*. Her recent qualitative investigations explore women's experiences with diabetes, household support during pregnancy and the challenges of balancing family responsibilities with self-care in urban contexts.

Dr. Beebeejaun-Muslum is a member of the National Team of the SADC Charter for Women in Science, Engineering and Technology Organisations (WISETO), Mauritius Chapter and has contributed to international dialogues on women in STEM, including Bridging the Gender Gap in STEM (2025) and Les Assises de la féminisation des métiers et filières du numérique (2026). Her contributions have been recognized internationally, earning her Asia's Outstanding Achiever Award in Sociology (2022–2023). She continues to champion intersectional approaches to dismantling systemic obstacles and shape responsive policies that empower women and girls across the Global South.

Mr. John Lumbala Chitoti

Lecturer,

Copperbelt University,

Kitwe, **ZAMBIA**

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John Lumbala Chitoti is a PhD candidate at the University of Zambia (UNZA) studying for a Doctor of Philosophy in Clinical Pharmacology and Nutrition. In a first-of-its-kind study in Sub-Saharan Africa, his PhD Thesis examines the effect of GLUT4 gene polymorphisms in the development of Type 2 Diabetes Mellitus (T2DM) among people living with HIV (PLHIV) receiving antiretroviral therapy (ART) in Lusaka, Zambia.

At five high-volume hospitals in Lusaka (UTH Adult, Chilene, Chawama, Kanyama, and Matero), Mr. Chitoti is currently leading a cross-sectional genomic study that has enrolled 400 participants, divided into four groups: HIV-positive with T2DM, HIV-positive without T2DM, HIV-negative with T2DM, and HIV-negative without T2DM. Clinical metrics (fasting blood glucose, HbA1c, blood pressure, lipid profiles, BMI, waist circumference), lifestyle factors (diet, physical activity, smoking, alcohol), and Next-Generation Sequencing (NGS) for GLUT4 genotyping are all included in the data collection.

His areas of specialization include translational research, pharmacology, bioinformatics, and molecular biology. Mr. Chitoti will employ machine learning to find biomarkers and use R, SPSS, and DESeq2 for transcriptomic and genomic analysis.

He holds a Master of Science in Supply Chain Management (from the University of Bolton, UK), a Master of Science in Pharmacology (UNZA), and a Bachelor of Pharmacy (UNZA)

Mr. Chitoti hopes to contribute to South-South scientific cooperation, present his stratified prevalence statistics at the International Conference on Lifestyle Diseases in Mauritius, and return with useful information for managing HIV/T2DM comorbidity in settings with limited resources.

Dr Tatsha Chandra Bholah
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Dr. Chandra Tatsha Bholah is a Lecturer at the University of Technology, Mauritius, specializing in Molecular Cancer Biology and Toxicology. She holds a PhD in Molecular Cancer Biology from the University of Mauritius, an MSc in Toxicology from the University of Birmingham (UK), and a BSc (Hons) in Biochemistry from the University of Delhi (India). Her career spans academia, research, and applied science, with experience as a Post-Doctoral Fellow, Research Officer at the Higher Education Commission, and Research Assistant at the Mauritius Research and Innovation Council. She has contributed to projects on cancer biology, anti-inflammatory and anti-cancer properties of natural compounds, as well as national research strategies and innovation initiatives. Her research interests focus on the early detection of cancers through molecular diagnosis, epigenetics, and cancer biomarkers, with the aim of understanding predisposition and improving strategies for early diagnosis. Her ultimate goal is to improve the global status of cancer care and mitigate the factors contributing to the current rise of cancer in the human population. Dr. Bholah is the recipient of several awards and fellowships, including the State of Mauritius Postgraduate Scholarship, the Research Training Fellowship for Developing Country Scientists (India), and 1st runner-up in the Famelab Science Communication competition in 2019. Many of these opportunities greatly supported her PhD research and her personal growth. She has authored peerreviewed publications in cancer biomarkers and phytochemistry and remains actively engaged in advancing biomedical research, higher education, and science communication. Last year, she was awarded the Joint NAM S&T Centre - JSS AHER, Mysuru, India Fellowship Programme to carry out research at JSS AHER, Mysuru amongst eminent scientists. Beyond academia, she is also a strong advocate for environmental conservation and healthy eating habits

Mr. Saiton Murindi

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Saiton Murindi is a final-year Master of Technology student in Food Processing at the Harare Institute of Technology, Zimbabwe. His research, titled "Assessing the compliance of sodium levels in packaged foods and beverages sold in East Africa (Kenya, Tanzania and Ethiopia) to WHO global benchmarks," addresses a critical public health concern by evaluating industry alignment with global sodium reduction targets. His work contributes to evidence-based strategies aimed at reducing the burden of non-communicable diseases (NCDs), particularly hypertension and cardiovascular diseases, in developing regions.

Murindi brings over 20 years of extensive experience in the fast-moving consumer goods (FMCG) sector, with progressive roles including Laboratory Technician, Production Supervisor, Quality Assurance Supervisor, and Quality Assurance Manager. He has developed strong expertise in food safety systems, quality assurance, production processes, and regulatory compliance. In addition, he serves as an Internal Auditor for Quality management systems (QMS), Environmental management systems (EMS), and Occupational health and safety systems, demonstrating his capacity to implement and evaluate integrated management systems within manufacturing environments.

A key milestone in his career was his contribution to achieving ISO 9001 certification at Unilever Zimbabwe in 2005, reflecting his commitment to international quality standards and continuous improvement. His combined academic and industrial experience enables him to bridge the gap between research, industry practice, and policy implementation.

Murindi's work aligns closely with global health priorities, including WHO sodium reduction initiatives and the Sustainable Development Goals (SDG 3: Good Health and Well-being). He is particularly interested in food reformulation, nutrition policy, and strengthening food systems to support healthier populations across Africa.

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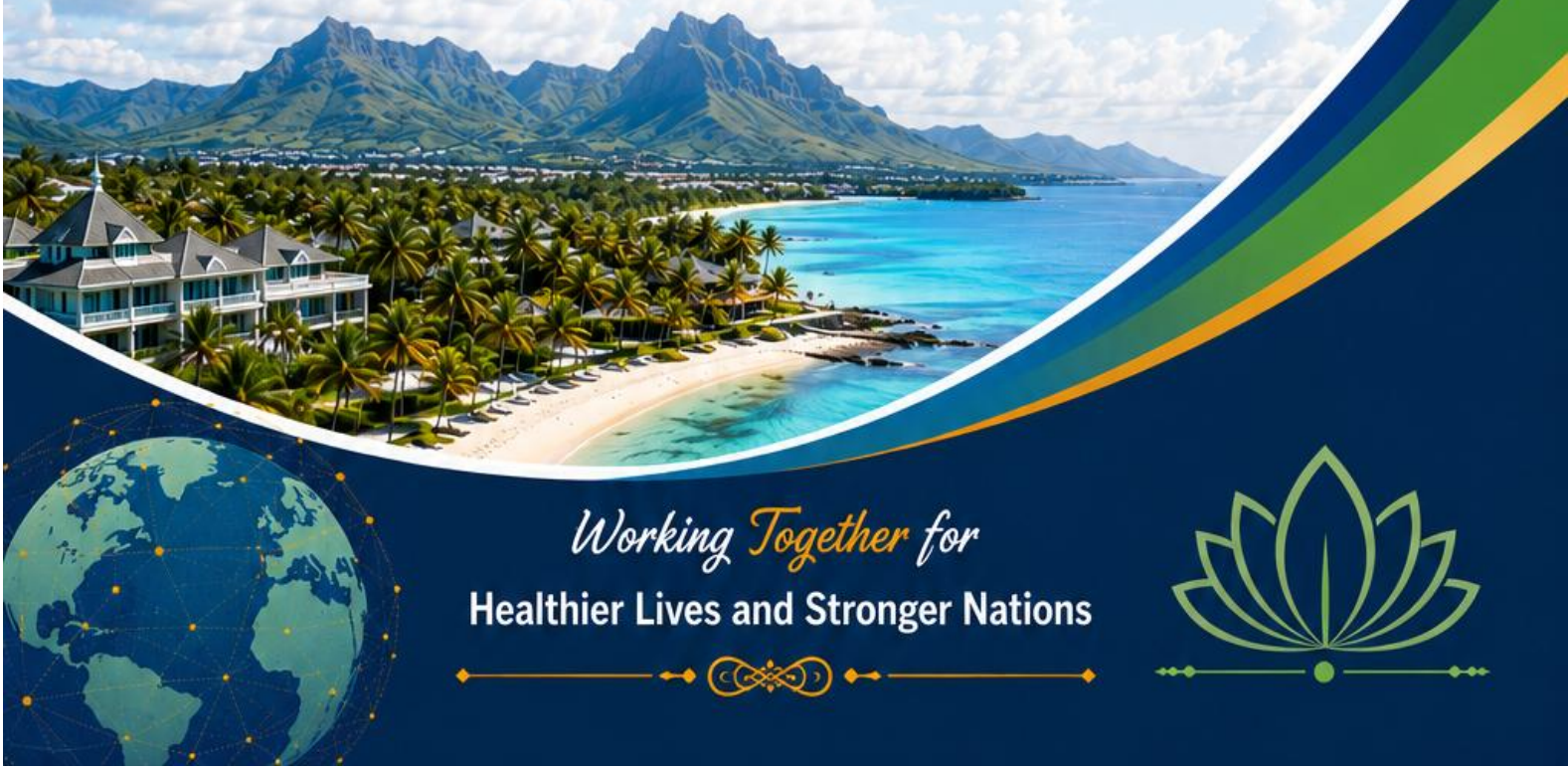

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