

PRESS RELEASE

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NUS study: Breastfeeding lowers cardiovascular risk in women with type 2 diabetes and gestational diabetes; lower gestational diabetes risk with healthy Mediterranean diet with low POP exposure

The Global Centre for Asian Women's Health and Université Paris Cite are collaborating on initiatives based on modifiable risk factors such as nutrition, lifestyle and behaviours to influence women's health outcomes across their life course and beyond.

Singapore, 25 October 2024 – Researchers from the Global Centre for Asian Women's Health or GloW, based at the NUS Yong Loo Lin School of Medicine (NUS Medicine) and Harvard T.H. Chan School of Public Health found that women who breastfed showed much lower rates of cardiovascular disease (CVD) and longer duration of breastfeeding was associated with lower risk of CVD in women with type 2 diabetes or gestational diabetes (GDM).

Analysing data from 15,146 women in the U.S. with type 2 diabetes and 4,537 with a history of GDM across two significant studies — Nurses' Health Study I & II — <u>the study revealed that</u> compared with women who never breastfed, breastfeeding for over 18 months was related to a significant reduction in CVD risk by 32% among women who had a history of type 2 diabetes and 51% reduction in CVD risk among women whose pregnancies who were complicated by GDM.

Having previously found that <u>maintaining a healthy lifestyle before pregnancy including being</u> <u>a non-smoker, getting sufficient physical activity, adopting a healthy diet and having a healthy</u> <u>weight before pregnancy can prevent more than 50% of GDM diagnoses, and that optimal</u> <u>lifestyle habits in women with a history of GDM were associated with more than 90% reduction</u> <u>in later diagnosis of type 2 diabetes risk</u>, GloW set out to identify modifiable factors at both molecular and behaviour levels partnering with investigators from Université Paris Cité (UPCité) and others that could influence women's health outcomes across their life course and beyond. The two institutions announced a new endeavour to encourage Asian women to adopt healthier diet choices through the consumption of a tailored Mediterranean diet at the Women's Health Conference 2024.

"Nutrition is a fundamental factor for health and there is substantial evidence to show that it plays a critical role in managing the risks of non-communicable diseases. Accumulating evidence has demonstrated that the earlier a healthy diet was adopted, the more years of life expectancy was gained. Meanwhile, it should be noted that optimal dietary patterns and

nutrition intakes are culture sensitive and efforts to improve nutrition and dietary patterns should be customised for the local population, to increase the chances of success. The findings from the new endeavour will provide valuable insights and evidence in developing nutritional interventions that work for Asian women and more importantly, potentially reduce the risk of cardio-metabolic disorders for women and their families," said Professor **Zhang Cuilin**, Director of GloW at NUS Medicine.

A <u>follow-up paper</u> to a <u>previous study that links greater adherence to healthy dietary patterns</u> to higher chemical exposure during pregnancy led by Professor Zhang found that amongst a study population of U.S. multi-racial pregnant women, those whom consumed a Mediterranean diet but had a low exposure to persistent organic pollutants (POPs) concentrations had the lowest GDM risk. Greater adherence to Mediterranean dietary pattern can also alleviate the potential harmful effect of POPs.

Malnutrition in Asia is a serious concern that poses significant health risks. While malnutrition has traditionally and frequently been associated with undernutrition, the rise of obesity led by overnutrition is a growing concern in developed countries such as Singapore, given that obesity is an important risk factor for cardiovascular diseases. According to a study which projects the incidence of heart attacks in Singapore from 2025 to 2050, the overall incidence of heart attack is predicted to rise by 194.4%, and females who are overweight / obese is projected to see a higher increase compared to males who are overweight / obese. Nutrition, a key modifiable factor in health and disease prevention, is one of the key themes of the conference, with sessions across all three days (24 - 26 October 2024) exploring of the link between dietary habits, food choices and the impact they have on long-term health outcomes of women.

Cultivating A New Generation of Women Health Advocates

Besides working with women health experts in Singapore and France, GloW and UPCité have also been actively engaging with their respective governments to augment outreach efforts and influence policy. Highlighting the need for international collaboration and dialogue, the conference convened experts from various fields, including **Amira Ghouaibi**, Head of the Global Alliance for Women's Health, World Economic Forum, Dr **Megan Greenfield**, Partner with McKinsey & Company, **Helena Hui Wang**, Asia Executive Editor of The Lancet, Professor **Zaleha Abdullah Mahdy**, National University of Malaysia and Professor **Chong Yap Seng**, Lien Ying Chow Professor in Medicine, Dean of NUS Medicine for the World Economic Forum session that discussed ways to address diverse health challenges faced by women in Asia.

"Too often, the well-being and health of women tend to be overlooked. In addition to women facing a set of distinct risk factors from men, variations in geographic location, ethnicity and lifestyles further distinguishes the impact that these factors have on the health of Asian women compared to their western counterparts. It is thus important for studies to be done in Asian contexts as much of our understanding comes from non-Asian sources. GloW's work is critical; by collaborating with global partners from diverse backgrounds to advance Asian women's health, they are accelerating the improvement on all fronts – education, research and advocacy – and that will bring us many steps closer to building a healthier future for Asian women, children, and families globally," said Professor **Chong Yap Seng**, Lien Ying Chow Professor in Medicine, Dean of NUS Medicine.

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About National University of Singapore (NUS)

The National University of Singapore (NUS) is Singapore's flagship university, which offers a global approach to education, research and entrepreneurship, with a focus on Asian perspectives and expertise. We have 16 colleges, faculties and schools across three campuses in Singapore, with more than 40,000 students from 100 countries enriching our vibrant and diverse campus community. We have also established more than 20 NUS Overseas Colleges entrepreneurial hubs around the world.

Our multidisciplinary and real-world approach to education, research and entrepreneurship enables us to work closely with industry, governments and academia to address crucial and complex issues relevant to Asia and the world. Researchers in our faculties, research centres of excellence, corporate labs and more than 30 university-level research institutes focus on themes that include energy; environmental and urban sustainability; treatment and prevention of diseases; active ageing; advanced materials; risk management and resilience of financial systems; Asian studies; and Smart Nation capabilities such as artificial intelligence, data science, operations research and cybersecurity.

For more information on NUS, please visit http://www.nus.edu.sg/

About the NUS Yong Loo Lin School of Medicine (NUS Medicine)

The NUS Yong Loo Lin School of Medicine is Singapore's first and largest medical school. Our enduring mission centres on nurturing highly competent, values-driven and inspired healthcare professionals to transform the practice of medicine and improve health around the world.

Through a dynamic and future-oriented five-year curriculum that is inter-disciplinary and inter-professional in nature, our students undergo a holistic learning experience that exposes them to multiple facets of healthcare and prepares them to become visionary leaders and compassionate doctors and nurses of tomorrow. Since the School's founding in 1905, more than 12,000 graduates have passed through our doors.

In our pursuit of health for all, our strategic research programmes focus on innovative, cutting-edge biomedical research with collaborators around the world to deliver high impact solutions to benefit human lives.

The School is the oldest institution of higher learning in the National University of Singapore and a founding institutional member of the National University Health System. It is one of the leading medical schools in Asia and ranks among the best in the world (Times Higher Education World University Rankings 2024 by subject and the Quacquarelli Symonds (QS) World University Rankings by subject 2024).

For more information about NUS Medicine, please visit <u>https://medicine.nus.edu.sg/</u>