

OBGYN ACP RESEARCH TALENTS

OBGYN ACP is a champion of Academic Medicine research and have been nurturing young researchers and clinician scientists, embarking on ground-breaking research and establishing collaborative opportunities with other institutions and partners to push the frontiers of research boundaries.



Professor Jerry Chan Kok Yen

Professor Chan is a Senior Clinician-Scientist Obstetrician and Gynaecologist (OBGYN) with research interests in life-course epidemiology, reproductive medicine, fetal immunology and molecular therapy. His research straddles several fields of cutting-edge science and seeks to translate discoveries from the laboratory and clinical arena into clinical applications to improve patient outcomes.



Professor Tan Kok Hian

Professor Tan is involved in research studies such as the studies of pregnancy cohorts and biomarkers in pregnancy. He is leading the RIE2020 NMRC Collaborative CG – Integrated Platform for Research in Advancing Metabolic Health Outcomes of Women and Children (IPRAMHO) which builds core research capability & capacity in KKH, SHP & NHGP for improving health outcomes. He also leads the Open Fund Large Collaborative Grant (OF-LCG) - Integrated Hyperglycaemia Incentivised Postnatal Surveillance (I-HIPS) Study which is novel intervention programme aims to provide lifestyle interventions in Asian women with a history of gestational diabetes mellitus, through the use of smart glucose tracking technology, to prevent postpartum type 2 diabetes mellitus (T2DM) later in life.



Dr Ryan Lee Wai Kheong

Dr Lee's research focuses on interventional lifestyle changes in improving obstetric outcomes in women with gestational diabetes and enhancing pregnancy outcomes in sub-fertile women with recurrent implantation failure.



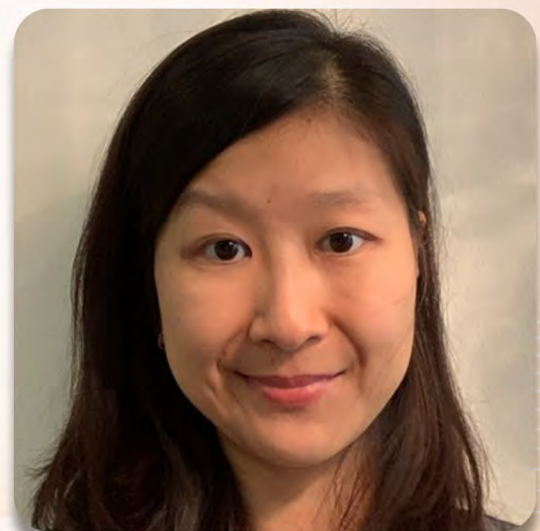
Dr Ku Chee Wai

Dr Ku is an obstetrician-gynaecologist clinician scientist resident at KK Women's and Children's Hospital (KKH). His current research is focused on early pregnancy complications as well as preconception health.



Dr Loy See Ling

Dr Loy is an Assistant Professor with Duke-NUS Medical School and a Senior Research Fellow in KKH. She attained her PhD in Human Nutrition with special interest in life course epidemiology and nutritional epidemiology.



Dr Elaine Quah

Dr Quah is a Senior Research Fellow in KKH and is a part of the Integrated Platform for Research in Advancing Metabolic Health Outcomes in Women and Children (IPRAMHO) team dedicated to observational and intervention studies examining the effects of maternal diet, physical activity and behavioral changes on maternal and child metabolic health outcomes.

We are proud to have many dedicated clinicians and staff making outstanding contributions to academic medicine. Striving for continual improvement in clinical outcomes and better patient care, we aim to build a strong pool of clinician researchers to drive healthcare innovation.

FOR MORE INFORMATION PLEASE VISIT :

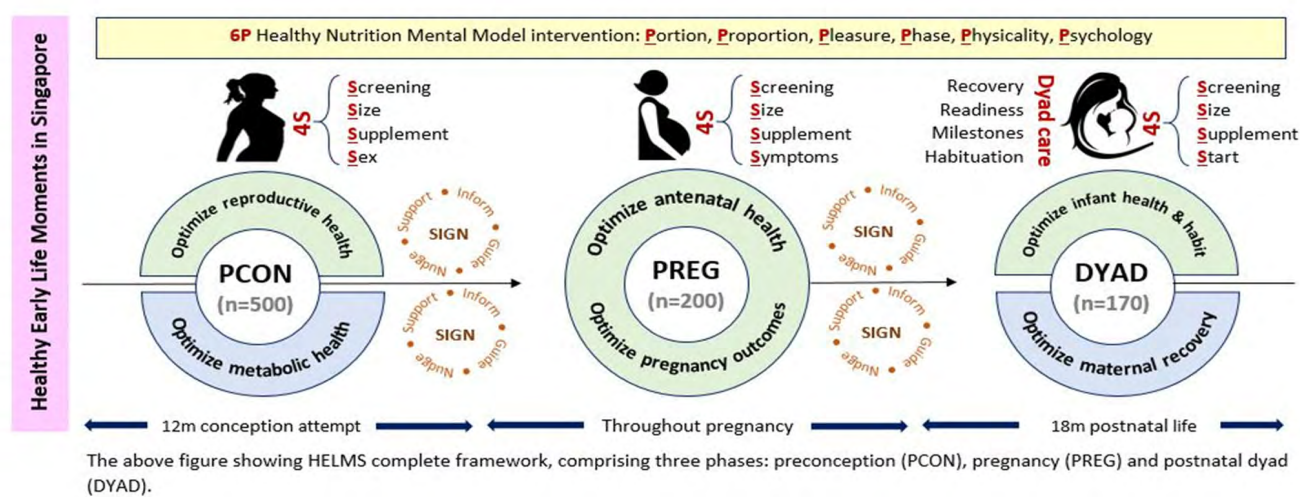
<https://www.singhealthdukenus.com.sg/acp/obgyn>



ADDRESSING THE EMERGING CHALLENGES IN MATERNAL AND CHILD HEALTH IN THE 21ST CENTURY

Maternal and Child Health (MCH) in Singapore is currently entering a new phase with different challenges than those faced 60 years ago. Advancements in medical technology and access to MCH resources have led to dramatic falls in maternal and infant mortality rates to world-leading figures. However, this is accompanied by a surge in obesity and its related metabolic diseases, as a consequence of rising caloric intake and a sedentary lifestyle. Along with this metabolic time-bomb, is an emerging mental wellness challenge, with one in seven Singaporean adults beset with mental health problems.

The next MCH chapter needs to address the twin challenges of Metabolic and Mental Health which has adversely influenced childbearing and child health outcomes, resulting in vicious cycles of disease. Currently, there is a lack of good upstream primary prevention, weak knowledge of nutrition, physical activity and mental health, as well as an absence of structured and coordinated care, particularly in preconception and interpregnancy, to prevent the development of obesity and mental disorders. These demand an integrated continuum of care focused on overweight women that acts upstream and promotes sustainable healthy eating mindsets and mental wellbeing from early life.



In partnership with Lien Foundation, we are establishing a novel Model-of-Care (MOC) using a life-course approach at KK Women's and Children's Hospital through the Healthy Early Life Moments in Singapore (HELMS) cohort. Over five years, HELMS will enroll 500 overweight women aged 21-45 years who are planning for pregnancy, with an estimated 170 completing their pregnancies where they will be followed for another 18 months as paired mother-child care. HELMS MOC will optimise the Metabolic and Mental Health of women and their child through a range of lifestyle modifications and interventions including healthy eating, targeted supplementation, purposeful physicality, emotional wellbeing and sleep hygiene. Using a digital platform, HELMS will deliver behavioural interventions through an interactive and personalised approach to engage and guide women through preconception, pregnancy and early post-natal life. The ultimate aim is to achieve a population with virtuous life cycles in Singapore. Specifically, we aim to improve fertility rates of overweight women from 38% to 50% within 12 months of trying, reduce adverse pregnancy outcomes, improve mental wellness, as well as optimise the postpartum recovery process and early childhood metabolic growth.

HELMS is unique as it integrates the twin domains of women's and children's health, and influences critical parts of the life cycle, including gametogenesis, fertilisation, embryogenesis and pregnancy, and enjoins mother-child paired care during the first 18 months. Together, these form the nucleus that encodes optimal MCH outcomes that are important for future generations. Application of HELMS MOC, strengthened with LIEN Foundation's strategic partnership, will put us right upstream in the fight to optimise Human Health and Potential, firmly in line with National Research Foundation's Research Innovation Enterprise 2025 mission.



LIEN foundation



BUILDING SINGAPORE'S FIRST RESEARCH ECOSYSTEM FOR METABOLIC HEALTH IN WOMEN AND CHILDREN

INTEGRATED PLATFORM FOR RESEARCH IN ADVANCING METABOLIC HEALTH OUTCOMES IN WOMEN AND CHILDREN (IPRAMHO)

To lower the risk of metabolic disease in future generations, KKH established Singapore's first Integrated Platform for Research in Advancing Metabolic Health Outcomes in Women and Children (IPRAMHO), in partnership with SingHealth Polyclinics and National Healthcare Group Polyclinics. IPRAMHO has hosted four Asia Pacific Maternal and Child Metabolic Health Conference (APMCMHC) and IPRAMHO International Meetings at KKH, with attendance by experts from Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, Myanmar, Philippines, Singapore, Sri Lanka, Vietnam and Thailand, to discuss Asia-Pacific perspectives in the management of metabolic diseases such as diabetes and obesity in pregnant women and children.

The research platform has also launched four sets of guidelines for pregnant women and children's health at the annual conferences, with close collaboration with organisations including the Obstetrical & Gynaecological Society of Singapore (OGSS), Perinatal Society of Singapore (PSS) and Exercise is Medicine Singapore (EIMS). These guidelines are namely:

- Management of gestational diabetes
- Management of perinatal nutrition
- Physical activity and exercise in pregnancy
- Integrated 24-Hour activity guidelines for children and adolescents

During the annual meetings, IPRAMHO members also collaborate with visiting experts from the Asia-Pacific region to develop an Asia-Pacific Consensus Statement for the yearly guidelines. These were subsequently published in scientific journals. The united and robust consensus helps the team to create guidelines that are relevant and reflective of the current lifestyle patterns of pregnant women and children within the region.

Additionally, several other IPRAMHO research studies have also been published in scientific journals, to inform the healthcare community on findings about metabolic health among the Singapore population, as well as recommendations towards enhancing metabolic health in women and children.

FOR MORE INFORMATION PLEASE VISIT :

<https://www.kkh.com.sg/news/academic-medicine/building-singapores-first-research-ecosystem-for-metabolic-health-in-women-and-children>



NEW CARE MODEL FOR PREGNANT WOMEN WITH GESTATIONAL DIABETES

TRANSFORMING CARE FOR GESTATIONAL DIABETES PROGRAMME (TC-GDP)

In Singapore, up to one in five women is at risk of developing gestational diabetes mellitus (GDM) during pregnancy. Women with uncontrolled GDM have a higher risk of developing complications during pregnancy. The condition also has long term negative impacts on mother and child health, such as an increased risk of obesity and Type 2 diabetes mellitus.

KK Women's and Children's Hospital, as well as the Temasek Foundation, introduced the Temasek Foundation GDM Care Programme to improve the detection, care and support for women who are at risk of Gestational Diabetes Mellitus (GDM).

The programme has benefited 4,864 women and significantly reduced poor birth outcomes associated with poor GDM management, such as stillbirth and macrosomia (giving birth to large babies), by 50 per cent.

With further support from Regional Health System, SingHealth High Risk Metabolic Postnatal Surveillance (SHRIMPS) Programme was developed, with the aim to improve postnatal GDM attendance rate as well as postnatal GDM awareness to reduce prevalence of Type 2 Diabetes. Nurse navigators are involved in conducting postnatal GDM education, tracking of postnatal GDM patients as well as collaborating with polyclinics for annual postnatal GDM follow up.

FOR MORE INFORMATION PLEASE VISIT :

<https://www.kkh.com.sg/news/patient-care/new-care-model-for-women-with-gestational-diabetes>

<https://www.facebook.com/TemasekFoundation/videos/2219912128235305/>



OBGYN ACP PHILANTHROPY ACTIVITIES

SINGHEALTH DUKE-NUS GALA DINNER



The SingHealth Duke-NUS Gala Dinner were held in 2017 and 2019 at The Ritz-Carlton Millenia Singapore. The event celebrated the philanthropic contributions of the various ACPs, and the continued efforts of the Academic Medical Centre to discover ways of improving the quality of patient care through research and education. The dinner was well attended by various ACP and generous donors.

GREAT EASTERN WOMEN'S RUN

OBGYN ACP has also been a beneficiary of the Great Eastern Women's run which took place from 2017 to 2019, at Marina Bay and Singapore Sports Hub, with staff participating under SingHealth. SingHealth Duke-NUS OBGYN ACP's Women's Health Research and Education Fund was once again a beneficiary. Money raised was shared between the two beneficiaries - KK Women's and Children's Hospital (OBGYN ACP) and Breast Cancer Foundation.





AM•EI GOLDEN APPLE AWARDS 2019

The AM•EI Golden Apple Awards are an accolade for faculty with active teaching roles in the SingHealth Duke-NUS Academic Medical Centre (AMC), honoring the best educators who continue to engage and inspire learners.

Adj Assistant Professor Manisha Mathur was awarded the Outstanding Educator Award, which recognizes and honours outstanding educators in SingHealth Duke-NUS across various healthcare professions who have transformed teaching and helped raised the standards of medical education. Adj Asst Prof Manisha Mathur has a keen interest towards educating and nurturing the next generations of healthcare professionals.

Being the Programme Director of the SingHealth Obstetrics and Gynaecology (OBGYN) Residency Programme, she has demonstrated unparalleled passion and dedication to medical education, and plays a prominent role in advancing OBGYN ACP as a world-class training centre for O&G.

NATIONAL OUTSTANDING CLINICIAN SCIENTIST AWARD

The National Outstanding Clinician Scientist Award is awarded to Clinician Scientist residents who have shown exemplary performance and attitude in clinical training and at the same time made significant research contributions to improve clinical care.

Dr Ku Chee Wai was presented with the award by Prof Wong Tien Yin, during the SingHealth Residency Graduation & Best Junior Doctors ceremony.



RESIDENCY IN SINGHEALTH EXCELS (RiSE) AWARDS – PROGRAMME DIRECTOR AWARD 2020

The Residency in SingHealth Excels (RiSE) Awards commemorate the achievements of residency programmes, faculty and residents, for their outstanding contributions in medical education.

This year, the prestigious Programme Director Award was presented to Dr Manisha Mathur. This award recognises the awardee for their exemplary dedication towards graduate medical education in SingHealth Residency. Dr Manisha was conferred the award for her continuous commitment and passion towards the Obstetrics and Gynaecology Residency Programme.

RESIDENCY IN SINGHEALTH EXCELS (RiSE) AWARDS 2019

The Residency in SingHealth Excels (RiSE) Awards commemorate the accomplishments of top-performing programmes, faculty and residents, as well as showcase their excellence in medical education. In 2019, the SingHealth Obstetrics and Gynaecology (OBGYN) Residency Programme received a total of 15 awards that year.

A total of 4 Faculty received the Outstanding Faculty Award, which recognises the dedication of faculty in developing residents and helping them to achieve their best, 2 Faculty received the Faculty Appreciation Award, which is given out to faculty members of each programme for their commitment to Residency training during their tenure and 2 Faculty received the Partners in Education Award, which is presented to non-physician faculty who are committed in sharing their expertise.



RESIDENCY IN SINGHEALTH EXCELS (RiSE) AWARDS 2018

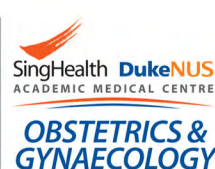
The Residency in SingHealth Excels (RiSE) Awards celebrate the achievements of top-performing programmes, faculty and residents, as well as showcase their excellence in medical education. In 2018, our SingHealth Obstetrics and Gynaecology (OBGYN) Residency Programme received a total of 17 awards, including the prestigious Best ACGME-I Program Award.

The Best ACGME-I Programme Award honours the top-performing program according to results from the ACGME-I survey. SingHealth OBGYN Residency Programme received the award for the 3rd year running from the Group CEO, Prof Ivy Ng.

RESIDENCY IN SINGHEALTH EXCELS (RiSE) AWARDS 2017

The Residency in SingHealth Excels (RiSE) Awards celebrate the achievements of top-performing residency programmes, faculty and residents, as well as showcase their excellence in medical education. Our Obstetrics and Gynaecology faculty and residents were awarded a total of 13 awards this 2017, for their exemplary academic and clinical contributions.

The programme received for the 2nd year running, the Best ACGME-I Programme Award, which honours the top-performing programme according to the ACGME-I survey results. The award was presented to the residency by the Group CEO, Prof Ivy Ng.



SINGHEALTH DUKE-NUS OBGYN ACP EDUCATION AND TRAINING

The role of Obstetrics and Gynaecology (O&G) in Singapore has expanded vastly. Education and training in O&G, together with the advancement in technological development and research, have enabled Obstetricians and Gynaecologists to optimize the delivery of care to patients. Since its inception in 2011, OBGYN ACP has had the privilege to establish a number of training and simulation courses designed to effectively train O&G residents. The courses under OBGYN ACP include:



PROMPT/CORE OBSTETRICS EMERGENCY COURSE



GYNAE LAP AND SURGICAL COMPLICATIONS COURSE



COLPOSCOPY & MANAGEMENT OF PREINVASIVE DISEASES OF THE GENITAL TRACT



OBSTETRICS ANAL SPHINCTER INJURIES REPAIR WORKSHOP



EARLY PREGNANCY AND GYNAE ULTRASOUND COURSE



REPRODUCTIVE MEDICINE COURSE



CORE GYNAECOLOGICAL SURGERY SKILLS COURSE

FOR MORE INFORMATION PLEASE VISIT :
<https://www.singhealthdukenus.com.sg/acp/obgyn/Pages/Education-Overview.aspx>

OBGYN CLINICAL SERVICES

SGH Centre for High-Risk Pregnancies (CHiRP)

CHiRP is a one-stop, consultant-led, multidisciplinary centre based at Singapore General Hospital to provide seamless care of pregnant women with high-risk pregnancies, medical conditions and fetal anomalies.

The following clinics run under the CHiRP umbrella

- High Risk clinic
- Obstetric medicine clinic
- Gestational diabetes joint clinic
- Cardiology joint clinic
- Rheumatology-Obstetric clinic
- Obstetrics-Haematology clinic
- Obstetrics-Kidney clinic
- Fetal medicine clinic

Our high-risk patients benefit from the collaborative and convenient care offered in these specialized high risk and joint clinics, and their clinical outcomes are optimized via multi-disciplinary meetings that holistically plan their antenatal, intrapartum and postnatal management. We have also led departmental efforts in the care and delivery of COVID-19 positive patients.

On the education and research front, CHiRP provides obstetric scan and maternal-fetal medicine training for residents, and is engaged in several multi-centre studies.



KKH one-STop Obstetric high Risk (STORK) Centre

The STORK centre was launched to provide integrated clinical services for women with increasingly complex and high risk pregnancies. These subspecialty clinics are led by specialists from the Department of Maternal Fetal Medicine in KK Women's and Children's Hospital alongside visiting medical specialists from other institutions.

Services under the STORK Centre include:

- Obstetric High Risk Clinic
- Joint Obstetric and Medical Disorders in Pregnancy Clinic
- Joint Obstetric and Dermatology Clinic
- Joint Obstetric and Haematology Clinic
- Joint Diabetes in Pregnancy Clinic
- Obstetric Pre-Pregnancy Counselling Clinic
- Preterm Birth Clinic
- Twin Clinic

Having a one-stop, integrated service has helped to facilitate a model of collaborative and multidisciplinary care which serves a vast group of women with complex pregnancies, such as those complicated by medical disorders (e.g. diabetes, hypertension, autoimmune conditions) or those with a current or previous history of obstetric complications (e.g. pre-eclampsia, stillbirth). In addition, with increasing recognition of the importance of pre-conception care, the newly established Obstetric Pre-Pregnancy Counselling Clinic aims to optimise the health of women before conception, thereby translating into better health and pregnancy outcomes for the mother and the future child.



KKH OncoFertility Clinic

A collaboration between the Departments of Gynaecological Oncology and Reproductive Medicine, this service aims to provide women with gynaecological cancers individualised treatment options with a focus on fertility preservation.

Through joint consultation with a gynaecological oncologist and fertility specialist, the OncoFertility Clinic is first-of-its-kind oncofertility service in Singapore and provides holistic counselling on cancer treatment, future fertility and fertility preservation options.



KKH Women's Health & Wellness Centre (WHWC)

The Women's Health & Wellness Centre aims to provide comprehensive and confidential sexual health services under one roof. It also aims to alleviate the fear and stigmatisation that women may face for sexual health issues by providing respectful and holistic care in a supportive manner.

The services are conducted by specialised doctors who provide patient-centred advice, management and treatment with strict confidentiality. By having an appointment-based system, WHWC ensures the efficient provision of services to our patients. Services by WHWC:

- Contraception Clinic
- STI Clinic
- Women's Advocacy
- Multi-Disciplinary Vulva Clinic
- Sexual Health Clinic
- Menopause Clinic

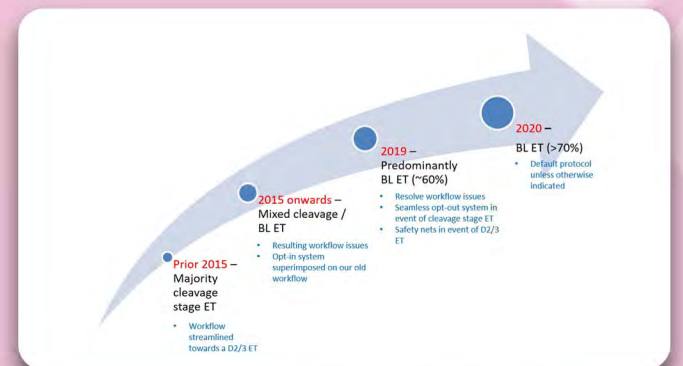


KKH IVF Centre Blastocyst Culture and Transfer

The centre is an advocate for single blastocyst transfer with the aim for patients to achieve a healthy singleton pregnancy.

KKIVF Centre began actively offering blastocyst culture in 2014 with 10% take up rate. Blastocyst culture allows better selection of embryos to be transferred and may increase the implantation rate while reducing the incidence of multiple births with the associated risks.

Today, we have more than 70% of our transfers using blastocysts and we actively encourage single blastocyst transfer. While maintaining our clinical pregnancy rates, the ability to transfer a single blastocyst has significantly reduced our multiple birth rates from more than 20% to around 10% and the perinatal risks for patients.



FOR MORE INFORMATION PLEASE SCAN THE QR CODE BELOW :



CHiRP -
Centre for High
Risk Pregnancy



KKH STORK Centre -
one STop Obstetric
high Risk Centre



Fertility Preservation:
Planning for Children
after Cancer



Women's Health &
Wellness Centre



TEMASEK FOUNDATION PROJECT ARIF

Temasek Foundation Achieving Resilient and Inspiring Families Programme (Project ARIF) is a two-year pilot programme by KK Women's and Children's Hospital (KKH), Islamic Religious Council of Singapore (MUIS) and Temasek Foundation, helping newly-weds develop a resilient marriage and family life to optimise maternal wellness and child development.

Launched in March 2021, the programme provides newly-wed couples with religious, marital, medical and parenting guidance from a team of Naib Kadis (deputy marriage solemnisers of Muslim marriages), mosque personnel and KKH healthcare professionals in the first two years of marriage. Where necessary, they will be referred for additional social support, intervention programmes or case management.

Till date, 278 couples have received the Project ARIF guide to maternal and child health; 197 couples have received additional support, which includes referrals to community agencies such as Family Service Centres and other counselling services. The programme aims to reach out to 800 couples for the duration of the pilot.

Several initiatives are currently being developed, which aim to further benefit the Project ARIF couples. Two Resource Centres co-located in 2 mosques are being prepared. These Resource Centres are intended as a platform to improve the Health literacy of Muslim families.

Additionally, Telehealth service is also being planned by clinicians and Social Workers from the project team, to offer free 20-mins consultation session for couples via ZOOM platform. This service hopes to render a more accessible way of reaching out and referring couples/patients to other relevant agencies if needed. This service is not meant to replace a formal medical consult. It hopes to give couples/patients appropriate and timely information, enough to empower their next actions.

As part of our effort to provide relevant knowledge and information to newlyweds, Project ARIF has organised 3 webinars, while 2 more webinars are in the pipeline for 2021. The webinars, affectionately called SaturDATE with ARIF, feature relevant topics presented by KKH clinicians and project partners. An average of 240 participants have registered for each webinar.

In order to further enhance and sustain our outreach to newlywed couples, the team is working on developing a website and social media presence.



FOR MORE INFORMATION PLEASE VISIT :

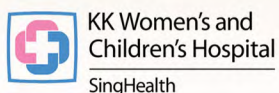
<https://www.straitstimes.com/singapore/pilot-programme-aims-to-prepare-muslim-newlyweds-for-married-life-starting-family>

<https://www.8world.com/news/singapore/article/temasek-foundation-marriage-pilot-project-1424841>

<https://www.straitstimes.com/singapore/pilot-programme-aims-to-prepare-muslim-newlyweds-for-married-life-starting-family>

<https://www.channelnewsasia.com/news/singapore/new-pilot-to-help-newlyweds-build-happy-healthy-marriages-video-14458720>

<https://www.youtube.com/watch?v=j9fTZ74hFss>



INTERNATIONAL OUTREACH



BANGALORE

In collaboration with the Singapore International Foundation (SIF), the three-year multi-track project “Enhancing Maternal and Child Health Services Programme” co-led by Prof Tan Hak Koon, has been launched in Bangalore, India. The project is designed to share knowledge and enhance the capacity of healthcare workers in managing high-risk pregnancies, and obstetric and neonatal emergencies so as to reduce infant and maternal mortality and morbidity. Carried out in partnership with the local government hospitals, the project will create quality care and health services for pregnant women and babies in Karnataka. The team and Singapore’s great healthcare infrastructure and low infant and maternal mortality rates were both mentioned in the local news media.

TAMIL NADU

The program, led by Dr Shephali Tagore and Dr Sonali Chonkar, was based on our hospital training project, Combined Obstetric Resuscitations and Emergencies Training (CORE) which was modified to the population needs and existing medical facilities that we explored during our feasibility trips before the training.

The project involved ‘Train-the-Trainers’ course in Obstetrics Emergencies, Management and Leadership tract modules to train hospital staff in collaboration with the Singapore International Foundation (SIF). The aim was to reduce maternal mortality and morbidity by better identification and management and prompt referrals to tertiary centers of high-risk pregnant mothers as well as identifying and managing leading causes of MMR.

Additionally, the plan was to improve maternal and child healthcare in Primary Health Centers (PHCs) in TN by enhancing identification of high-risk pregnancies and management of obstetrics and neonatal emergencies in PHCs.

The other focus was on improving existing infrastructure to better support the antenatal care of mothers. Regular visits were planned to observe the achievements of Phase 1 to improve maternal and child healthcare.

This initiative aimed to benefit at least 50,000 pregnant mothers over 4 years. This was a successful project leading to change in TN government policies.



CAMBODIA

KK Women’s and Children’s Hospital, in partnership with Water and Health (WAH) Foundation and Kampong Chhnang Provincial Health Department (PHD), completed a Train-the-Trainers, three-visit strategy in Kampong Chhnang between 2013 to 2015. The initiative was spearheaded by Prof Kenneth Kwek, Dr Shephali Tagore, Dr Manisha Mathur and Dr Sharon Foo.

Following a feasibility trip in 2012 to better understand the infrastructure, resource limitations, and clinical challenges faced by the Cambodian healthcare providers, the KKH team designed a curriculum modified from KKH’s Combined Obstetrics Resuscitation and Emergencies (CORE) Training course. During the inaugural training in 2013, 10 promising participants were selected as Master Trainers. These trainers conducted the training alongside the KKH team in 2014. By 2015, the Master Trainers led the programme, with KKH team in supportive roles only. This strategy ensured continuity of the training programme.

The KKH team committed to annual visits to re-affirm the accreditation of the core team of Cambodian trainers, and ensure consistent high standards and quality of teaching. The training brought low-cost medical solutions and obstetrics emergencies training to over 200 midwives and doctors from all 39 health centres and 3 hospitals in the province. The impact of this obstetric emergencies training has dropped the mortality rate for mothers during birth by 70% in Kampong Chhnang.

