Establishment of the First Shariah-Compliant Human Milk Bank: The IIUM Experience in Developing Halimatussaadia Mother's Milk Centre

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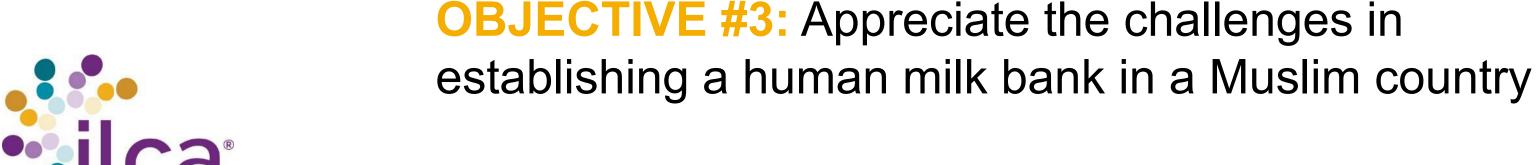
I have no conflict of interest to declare



OBJECTIVES

OBJECTIVE #1: Milk sharing and donation from Islamic Perspective

OBJECTIVE #2: Identify ethical concerns and issues regarding human milk banking in Islamic countries





INTRODUCTION

- Breastfeeding has been recommended as the optimum and gold standard in infant feeding
- Because of known benefits, most mothers want to give the best to their children by breastfeeding or giving breast milk.
- This may include milk sharing or wet nursing and receiving donor human milk



BENEFITS OF BREASTMILK

- It is well known and studied on the benefits of breastmilk to babies including premature babies.
- It contains the optimum nutrition for growth and development as well immunological factors that help fight infections
- For premature babies, feeding with breastmilk is paramount importance since they are prone to sepsis and NEC



Noraida Ramli, Nor Roshidah Ibrahim, Van Rostenberghe Hans. (2010). Human milk banks-benefits and issues in an Islamic Setting. Eastern Journal of Medicine. 15. 163-167

CHALLENGES FACED BY MOTHERS WITH PREMATURE BABIES

- Mothers with preterm babies face particular challenges in providing sufficient breastmilk
- Eventually will result in a lower percentage of preterm babies receiving breastmilk and premature weaning
- Hence, milk sharing or milk donation is one of the methods to overcome this problem



Riordan, J., & Wambach, K. (2016). Breastfeeding and human lactation. In *Donor milk banking* (5th ed., pp. 534–536). Jones and Bartlett Learning. ISBN-13: 978-1-284-09395-7.

MILK SHARING

- In Islam, breastfeeding and milk sharing are considered as a virtue
- There are many verses in the Holy Quran which recommend breastmilk to be given to infants
- During the pre-Islamic era, milk sharing and wet nursing were a common practice among the Arabs
- Prophet Muhammad PBUH was nursed by his mother Amina and 2 wet nurses which is Thuwayba Aslamiah and Halimatusaadia



MILK SHARING

- Milk sharing is an informal common practice among families and extended families
- With the internet and social media platforms- informal milk sharing has gone beyond family circles
- However, milk sharing comes with its pros and cons
- Most important concerns are the risk of contamination and lack of screening among donors
- Human milk banking ensure safety in terms of screening for infectious disease and reduce the risk of contamination



Keim SA, Hogan JS, McNamara K, et al. Microbial con-tamination of human milk purchased via the internet. Pe-diatrics 2013;132:e1227–e1235

MILK SHARING FROM ISLAMIC PERSPECTIVE

- Sharing breastmilk or wet nursing in Islam is considered significant where a special kinship can be developed
- This means that if a baby is breastfed by a woman other than his own mother, he will be prohibited from marrying the woman who breastfeeds him, her daughters and sisters.
- This will also mean that the milk mother is prohibited from marrying the nursling, and the children of the foster son.
- This relationship is known as 'Mahram' through milk kinship



Ghaly, M. Milk banks though the lens of Muslim scholars: one text in two contexts. Bioethics. 2010. doi:10.1111/j.1467-8519.2010.0184410.1111/j.1467-8519.2010.01844.

MILK SHARING FROM ISLAMIC PERSPECTIVE

- Currently, with vast advances of the internet, wet nursing has gone across borders and can be available through advertisement on social media platforms
- Problems arise when there is no systematic system to record and trace the milk mother and milk child data, especially for Muslims as milk sharing activities could affect their relationship status in Islam



MILK KINSHIPS

- In Islamic law, breastfeeding institutes a non-biogenic kinship relation known in Arabic as 'rada' (lit: 'suckling')
- This type of kinship forbids marriage on a permanent ground
- 3 important elements





PILLARS OF BREASTFEEDING (ARKAN AL RADA)





The milk



Nursling (child)

Must be a woman Can be identified





Milk must reach the baby's stomach -5 times (Shafie's School of Islamic jurisprudence)

The child must be less than 2 years





Sayed Sikander Shah. Fosterage as a Ground of Marital Prohibition in Islam and the Status of Human Milk Banks. *Arab Law Quarterly* 1994; 9(1)

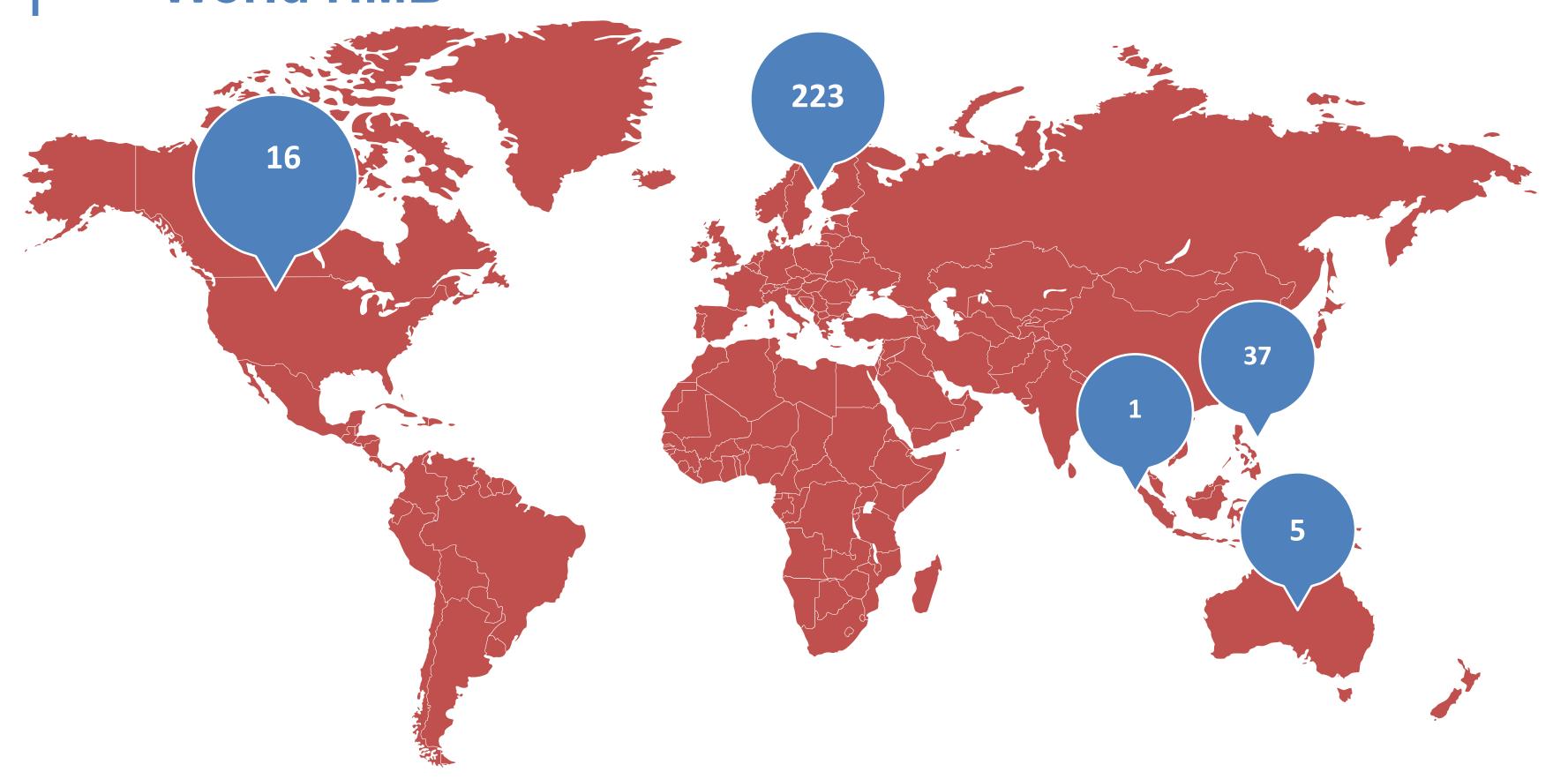
DEVELOPMENT OF HUMAN MILK BANKS

- Started in the 20th century when wet nursing was difficult to obtain
- First HMB was in 1909 in Vienna Austria
- Objective: to help sick and premature babies in the hospitals
- Strict procedure to ensure the safety of donated milk handling and storage



Ghaly, M. Milk banks though the lens of Muslim scholars: one text in two contexts. Bioethics. 2010. doi:10.1111/j.1467-8519.2010.0184410.1111/j.1467-8519.2010.01844.

World HMB



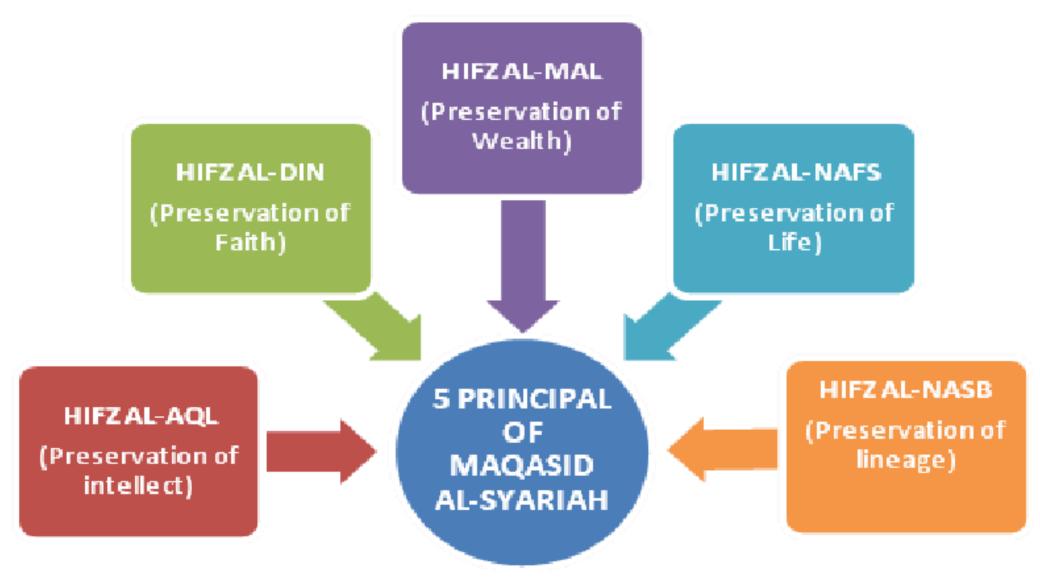
HUMAN MILK BANKS IN MUSLIM COUNTRIES

- HMB is well established in western countries
- In Islamic countries, it is still debatable and considered a complex issue
- To date, Iran is one of the Muslim countries that has a human milk bank while Singapore with 15 % of Muslim population has established theirs in 2018.



Normadiah Daud, Zurina Ali, Hamizah Ismail, Nurjasmine Aida Jamani, Siti Roshaidai Mohd Arifin, Syed Abdul Khaliq Syed Abd Hamid (2020). The implementation of Shariah compliant human milk bank for premature infants in Malaysia. Journal of Critical Reviews, 7 (16)., 0 pp. 1007-1012. ISSN 2394-5125

MAQASID AS-SYARIAH





TWO OPINIONS OF MUSLIM JURIST

Agree for HMB

- Noble aim: helping vulnerable people such preterm and sick babies
- Noble deed: It is a deed that will be rewarded by God and thanked by human being
- Milk bank is not equal to breastfeeding

Disagree towards HMB

- Uncritical adoption of Western Cultures
- Not needed since there is a strong social network among Muslims
- Possible harm eg infection
- Milk bank is equal to breastfeeding where milk kindship is formed



Mohammed Ghaly, "Human Milk Based Industry in the Muslim World: Religioethical Challenges Breastfeeding Medicine, vol

SUMMARY OF CONCERN OF THE 2 GROUPS

- 1. Best interest (maslahah) of infants especially premature babies, babies who their mother died at birth or babies whose mother could not breastfeed
- 2. HMB is similar to breastfeeding, hence the hukm is the same
- 3. Necessity vs mere adaptation to Western practice
- 4. Possible harm: Disease transmission
- 5. Establishment of milk kinship
- 6. Doubt and mix up of lineage

- 7. Quantity of milk and number of feedings
- 8. DEBM mixed with other substance
- 9. Identity of the donors
- 10. Possible abuse of HMB by some mothers
- 11. Cost of maintaining an HMB
- 12. Culture of milk sharing may be lost



INTERNATIONAL ISLAMIC FIQH ACADEMY (IIFA)

 In 1985, Majma' al Fiqh al Islami passed the bill that the establishment and feeding of infants from HMB is not permitted

HMB is a western practice which had technical and negative scientific experiences

Milk kinships through breastfeeding can occur where current HMB practice leads to confusion and mixing of lineage In the Islamic world, the tradition of wet nursing is still practiced. Hence this eliminates the need for HMB



http//www.iifa-aifi.org/ar/1584.html

NATIONAL FATWA COUNCIL of MALAYSIA

• In 2011, the decision by the National Fatwa Council Malaysia passed the fatwa that Human Milk Bank is **NOT PERMITTED**



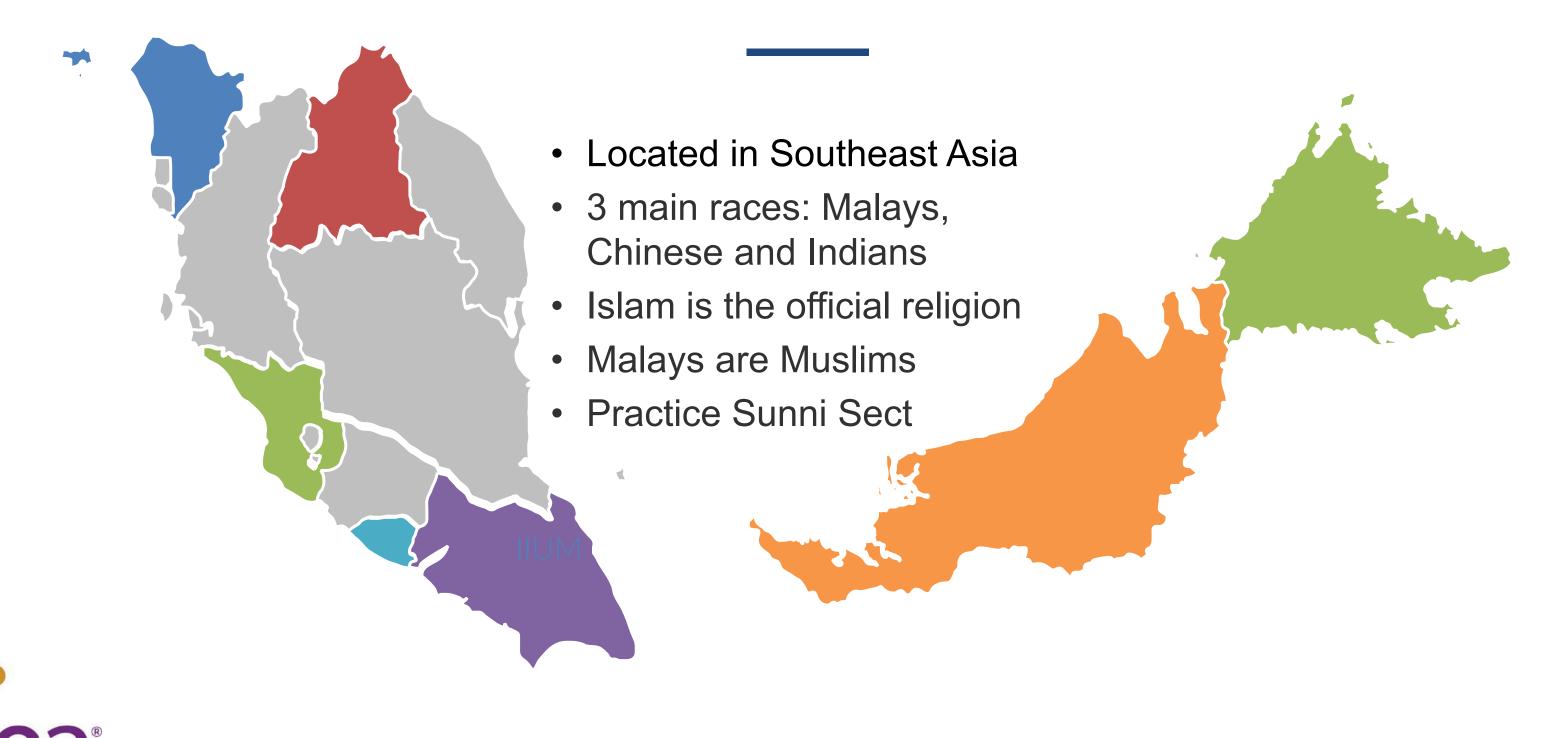
https://muftiwp.gov.my/en/artikel/bayan-linnas

IIUM Experience in Developing and Establishing Halimatusaadia Mother's Milk Centre





Malaysia







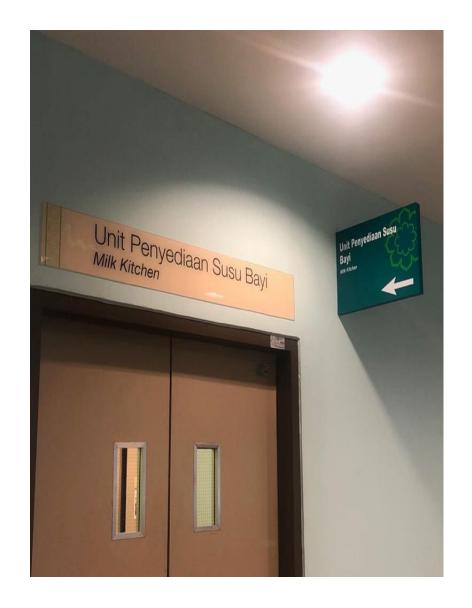
Pusat Susu Bonda HALIMATUSSAADIA

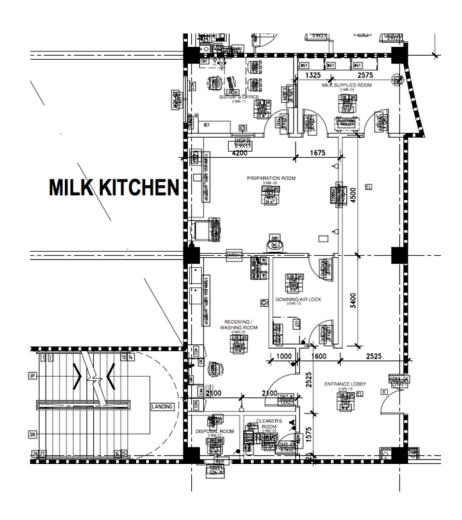
SASMEC @IIUM



HOW DID IT START?

- Our hospital was working towards accreditation as Baby-friendly Hospital Initiative (BFHI) since 2018
- Availability of a milk kitchen at level 3 which was not utilized
- Our Flagship leader put up the idea of having a human milk bank which will be according to Islamic Principles







CHALLENGES FACED

CHALLENGE	SOLUTIONS
Establishment of milk kinship	Acknowledge this matter and provide an algorithm and special record system to identify the donors, meeting the families of donor and recipient with consent
Doubt and mix up of lineage	and producing a Milk Kinship card.
Identity of the donors	Ensure that EACH donor's EBM is processed at a time, labeled properly and having a cross-check system to avoid human error
Quantity of milk and number of feedings	 Followed the School of Imam Shafie which is 5 times satisfying feeding for the establishment of milk kinship Development of i-milk calculator
Cost of maintaining an HMB	Support from Hospital Director and the University Management



STAGES OF WORK

- However, Malaysia's Fatwa Committee has clearly prohibited the establishment of HMB in Malaysia in the 97th Conference of the Fatwa Committee National Council for Islamic Religious Affairs of Malaysia 2011
- Human milk bank was not considered a necessity



STAGES OF WORK

 Several meetings with the state's religious authority were made to ensure that our work was according to the Islamic principles and syariah law



WORK VISIT TO SCOTLAND HUMAN MILK BANK





Donor Milk Bank





HALIMATUSSAADIA MOTHER'S MILK CENTRE





THE FLOW

Eligible Donor

- Proper counselling
- Written informed consent
- Negative serological test
- Explanation on milk collection



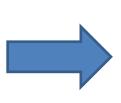
Collection and labelling of breast milk

- Plastic Bottles are provided HMMC
- Label with time. Date of expression and personal data
- Previous expressed EBM may be acceptable after reviewing expression and storage technique



Storage

 Proper storage guidelines should be adhered



Transfer

Transfer donated human milk to HMMC using cooler bag



- DHBM culture showed no microbial growth
- Ready to use and delivered to NICU



Pasterurization

- Pre pasteurization milk culture done
- Pasteurization by Holder method done for EACH donor separately
- Pasteurized milk of each donor will be randomly cultured
- Store in freezer awaiting milk culture result



HMMC

- Amount of milk donated is recorded in system and check for status of milk kinship
- Stored in a fridge for next process



SPECIFIC CRITERIA

DONOR

- Married women and agreed by her husband
- Personal information documented
- Option for milk kindship offered after counselling
- If agree for milk kindship establishment:
- a. Will receive explanation regarding Milk Kinship
- b. Disclosure of identity and introduce to the recipient's family
- c. Will receive a certification and kinship registration
- If disagree for milk kinship,
- a. It encourage to know recipient's family
- b. Milk donated will be limited to only 3 satisfying feeds per recipient.



RECIPIENT

- Consented by parents
- Babies that meet the criteria
- Muslim babies will ONLY receive milk from Muslim donor
- Parents has the right to choose the option for milk kinship establishment after an explanation given



I- MILK CALCULATOR

- Development of a system to minimize human error
- To track the amount of feeding of a recipient



The uniqueness of HMMC

- For donors intending to form milk-kinships with their recipients, the maximum allowed recipient is three (3) at a particular time
- For donors who do not intend for milk –kinship, the recipients will only receive a maximum of three (3) satisfying feeding
- Every donor who forms milk kinship with their recipient will be given a Rada'ah (fosterage) certificate



PROGRESS OF HMMC

- Still in infancy stage but progressing
- After approval from the State Religious authority, the number of donors is increasing with babies needing the milk
- The State Religious authority will monitor and visit HMMC yearly.







Way Forward...

- To collaborate with the Department of National Registration of Malaysia in order to link the milkkinship with personal identification and birth certificate
- To expand the service around Kuantan and the Pahang state
- To develop research opportunities and network with other Muslim countries



CONCLUSION

- A Shariah-compliant human milk bank is feasible to be established in Muslim countries
- It helps to protect the lives and health of premature and sick babies
- It also helps to prevent the overlapping of mahram relationship due to milk –kinship between one recipient and multiple donors or one donor with multiple recipients.



ACKNOWLEDGEMENT

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- 2. Director Hospital-Professor Dato' Mohammed Saufi Awang
- 3. Nurses of HMMC



Contact us

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