

# Meeting an Icon in Communicable Diseases Management

## Dr Edmund Hugh Monteiro



The National Centre for Infectious Diseases is what it is today because we have stood on the shoulders of “giants”, many whom were local experts at the Communicable Disease Centre (CDC) and Middleton Hospital, which had served as treatment facilities for infectious diseases in Singapore. They had cared for patients with compassion, and professionalism, and also led medical teams in tackling new infectious diseases courageously.

One of these “giants” is Dr Edmund Hugh Monteiro. He was the medical director of Middleton Hospital from 1980 until 1985 when the hospital merged with Tan Tock Seng Hospital (TTSH) and became the CDC. Dr Monteiro continued serving as medical director of the CDC from 1985 to 1993.

### LEARNING ABOUT INFECTIOUS DISEASES AND BUILDING STRONG FOUNDATIONS

Dr Monteiro was the eldest child of Prof Ernest Steven Monteiro, a well-known infectious diseases doctor. While his parents emphasised the importance of education, they did not directly influence him to study medicine. Dr Monteiro chose medicine because it was the best option for him then. His father supported his decision and gave

two pieces of advice that would have a lasting impact on his future medical profession: “You never stop learning. You may even have to sacrifice your lunch”. He took that advice to heart and continued to look to his father for guidance as he pursued a career in infectious diseases.

Dr Monteiro’s father was the Director of Middleton Hospital during the Japanese Occupation. The younger Monteiro spent part of his childhood growing up on the hospital’s grounds. The hospital was early Singapore’s only dedicated facility for treating infectious diseases like bubonic plague, cholera, smallpox, typhoid and diphtheria. Observing his father care for patients with infectious diseases, he became aware of the public health risks and sufferings of people affected by such diseases.

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Dr Monteiro joined Middleton Hospital in 1965 when diseases such as cholera, polio, typhoid and measles were significant challenges for the population. He honed his skills as an infectious disease doctor under the tutelage of Dr Leong Kok Wah, then the hospital medical superintendent.

He managed his first case of cholera under the guidance of Dr Leong about three years after he joined the hospital. Cholera patients typically suffered severe diarrhoea with loss of fluids which could lead to kidney failure if dehydration was not addressed quickly. Dr Leong's approach was to administer intravenous fluids at the rate of two litres per hour. Initially Dr Monteiro had reservations about giving patients such large volume of fluids as it might cause heart failure. But trusting Dr Leong's judgement, and with more experience he learned to confidently give the patients enough fluids as quickly as they needed it.

These experiences shaped the strong foundation of his medical career. The knowledge and expertise he acquired helped prepare CDC in managing new emerging diseases that Singapore would face in later years.

### WINNING TRUST TO WIN THE BATTLE

Based on his father's experience, Dr Monteiro learned that winning the trust of peers and patients was a critical factor in overcoming disease outbreaks. During the polio outbreak in 1962, the

senior Prof Monteiro had wanted to vaccinate children with the oral polio vaccine (OPV) or the Sabin vaccine, named after Dr Albert Sabin the vaccine's inventor. As the vaccine was not yet tested on a large population sample, there were doubts and unease in the medical community about its efficacy. Eventually, he was able to convince his peers and government health officials with his explanations because they trusted his judgement. The OPV vaccination proved effective in reducing the transmission. Dr Monteiro recounted, "As things turned out, it worked beautifully. The oral vaccine did block the virus." <sup>1</sup>

The importance of trust contributed to Dr Monteiro's personal experience of handling the human immunodeficiency virus (HIV) disease in later years. The first HIV case in Singapore was reported in May 1985. The CDC was designated by the Ministry of Health (MOH) as the centre for the treatment of all HIV patients. HIV was unlike any of the other diseases that the CDC had managed. In the beginning, the hospital staff reacted with fear because of the lack of information about how the disease was transmitted except that there was no cure for it and the mortality rate of HIV patients was very high. Dr Monteiro realised that disseminating accurate information about the transmission of the disease was key to allaying the fears of the staff and winning their trust to work together to help HIV patients. He sent three nurses

to attend a conference on acquired immunodeficiency syndrome (AIDS) in Australia where they learned how healthcare workers in other countries managed the disease, and who upon their return shared knowledge, changed the mindset, and helped reduce the stigma surrounding HIV.

### IMPLEMENTING PUBLIC HEALTH MEASURES: A COLLABORATIVE APPROACH

Soon after Dr Monteiro joined Middleton Hospital, there was an outbreak of typhoid fever. Investigations revealed that itinerant hawkers were largely responsible for transmitting the water-borne and food-borne disease. The young doctor learned that the poorer section of the population was more vulnerable due to unhygienic living conditions and consumption of contaminated food and water. He said, "One of the hawkers responsible for the 1965 typhoid outbreak was an itinerant hawker and he sold cold drinks, so you can see the capacity for mischief was tremendous." <sup>2</sup>

In a meeting organised by MOH to deal with this threat, Dr Monteiro found to his surprise that in addition to doctors, it was also attended by a police officer and an engineer. It was decided that to reduce typhoid transmission, the itinerant hawkers had to be licensed and moved to food centres where clean water was available and conditions were more sanitary. Implementation of the

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appropriate public health measures thus went beyond the work of public health officials and required the support of enforcement officers and facilities managers. Dr Monteiro understood then that a whole-of-government support was necessary to eradicate the disease. This experience early in his career impressed on Dr Monteiro a mindset that effective roll-out of public health policies requires a collaborative approach and efforts involving all relevant stakeholders.

### LIFELONG LEARNING AND SERVICE

Dr Monteiro learned from his experiences with patients that effective treatment goes beyond diagnoses. In the 1970s, many parents were reluctant to have their children immunised against measles. In one meeting with an elderly woman whose grandson had measles, Dr Monteiro learned that she was not aware that measles immunisation was available in Singapore,<sup>3</sup> and he took time to reassure them that the immunisation was safe. From this encounter, Dr Monteiro realised that addressing the concerns of patients and public health education are important in overcoming

vaccine hesitancy. This patient-centred approach to care continued with Dr Monteiro and the CDC's treatment of HIV patients, who usually had multiple health issues arising from a compromised immune system.

Leveraging CDC's ties with TTSH, he tapped on a team of medical specialists to provide multidisciplinary treatment and care for AIDS patients. Dr Monteiro and his team learnt not only the science of HIV but also the economics and social aspects of caring for HIV/AIDS patients. They roped in social workers and counsellors to advise and educate HIV patients on the importance of safe sex and good hygiene practices to reduce risk of transmission. They encouraged HIV patients to keep to their treatment and stay hopeful, and even organised campaigns to raise funds for the treatment.

Under Dr Monteiro's guidance, every staff at CDC worked as a team to provide the best treatment and care for HIV patients, and along the way helped advocate greater acceptance and support by families, employers, the government and community for

people living with HIV. He said, "I think, this is just some of the small battles that as doctors who take care of patients with HIV and AIDS we become their advocates. That's what we often have to do, so that actually we can redress some of the injustices and imbalances."<sup>4</sup>

In dedicating his life to serving patients, he shared that it was a privilege to work with very dedicated people, especially the nurses. "And of course, the rewarding thing is that you get the majority of your patients through this illness and they are home," he said.<sup>4</sup>

Dr Edmund Monteiro's experience in the prevention and treatment of communicable diseases during his time provided a window into understanding the multidisciplinary approach in how Singapore manages infectious diseases. He commented, "The National Centre for Infectious Diseases is a facility that we have dreamt of. What has been set up today will be a basis for more progress in outbreak preparedness and readiness in the future".

### References:

- <sup>1</sup> Ministry of Health, "Caring for our People: 50 Years of Healthcare in Singapore", 2015
- <sup>2</sup> Society of Infectious Disease (Singapore). "Infectious diseases and Singapore: past, present and future", 2015
- <sup>3</sup> YouTube, SG50 Interview, [https://www.youtube.com/watch?v=wGrow\\_Lh8g](https://www.youtube.com/watch?v=wGrow_Lh8g)
- <sup>4</sup> NAS, Oral History Interview, Development of Medical Services in Singapore, Accession Number 001956/16, 16 October 1997