

## THE IMPACT OF SINGAPORE'S SILVER TSUNAMI – HOW READY ARE WE?

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The silver tsunami is reaching Singapore's shore, with the rapidly rising population of senior citizens over the past decade. By 2030, one in four Singaporeans will be aged 65 and above as compared to one in eight today<sup>1</sup>. Also, our senior citizens are living healthier and longer lives. For men, the average number of years lived in good health has increased from 65.8-years in 1990 to 72.3-years in 2015<sup>2</sup>. For women, it has improved from 69-years to 75-years<sup>2</sup>. Inevitably as our population ages rapidly, more will suffer from chronic diseases. In 2015-2016, one in four Singaporeans aged above 65 years old developed a chronic disease<sup>3</sup>. This is according to The Singapore Life Panel, a study conducted by the Centre for Research on the Economics Of Ageing<sup>3</sup> at the Singapore Management University (SMU). While our healthcare spending remained fairly stable with well-controlled chronic diseases, those with poorly-controlled chronic diseases who developed stroke, end-stage renal failure or other major health shocks will experience persistently high healthcare expenditure.

With this silver tsunami reaching our shores, our healthcare system is continually faced with new challenges and she must adapt to meet these challenges. The Ministry of Health Singapore has adopted the “Three Beyonds” to ensure that our healthcare system continues to provide Singapore with good healthcare that is affordable and sustainable<sup>4</sup>:

1. Beyond Hospital to Community
2. Beyond Healthcare to Health
3. Beyond Quality to Value

### 1. Beyond Hospital to Community

This involves shifting our healthcare delivery model from one that is built around the hospital to one that can meet the needs of more Singaporeans closer to their homes, at primary and community care settings. Primary care is the cornerstone of our healthcare system and a strong primary care sector is needed to help Singaporeans maintain their health and manage chronic diseases well. Primary Care Network (PCN) aims to improve chronic diseases management through team-based care, with support for more Family Physicians working in the private sector to embark on PCNs. With PCNs, family doctors can organize themselves into virtual networks and deliver care through a multi-disciplinary teams of doctors, nurses and allied health partners to manage patients' care needs more holistically.

### 2. Beyond Healthcare to Health

Encouraging good health is crucial and this encourages and empowers Singaporeans to identify causes of ill health early and reduce the progression of long-term chronic diseases. The “War on Diabetes” focuses on prevention methods, early screening and control on disease progression. The NutureSG Taskforce developed a suite of recommendations to strengthen health promotion from pre-schools to Institutes of Higher Learning and extend health promotion beyond schools to homes and communities. Tobacco Control Measures has resulted in change of the minimum legal age of purchase, use, possession, sale and supply of tobacco products to 19-years old from 1<sup>st</sup> January 2019. This will be raised progressively every January until 2021 when smokers will have to be at least 21-years of age<sup>5</sup>.

### 3. Beyond Quality to Value

Keeping healthcare affordable and sustainable for the future is the core for this third “Beyond”. Each year, new healthcare technologies such as drugs and devices enter Singapore. The technologies have varying degrees of cost and clinical benefit. Health Technology Assessment (HTA)<sup>6</sup> is an internationally accepted scientific methodology used to assess the clinical and cost effectiveness of new technologies. The Agency for Care Effectiveness (ACE)<sup>7</sup> was established in 2015 with the aim of establishing relative value of technologies through HTA. ACE publishes Appropriate Care Guides (ACG)<sup>8</sup> to guide healthcare providers when managing various chronic diseases.

Family physicians in primary care are at the frontlines to advocate these “Three Beyonds”. In this Family Practice Skill Course on chronic disease management, our established Family Physicians, Endocrinologist and Gastroenterologist colleagues will speak about key points in the assessment and management of chronic diseases: Hypertension, Diabetes Mellitus, Obesity, Non-Alcoholic Fatty Liver Disease, Gout and Heart failure.

In Unit 1, A/Prof Goh Lee Gan will discuss about the management of hypertension and proteinuria in patients with and without Diabetes Mellitus. This article will discuss on the blood pressure targets in older patients, changes in albuminuria and cardiovascular risk under antihypertensive treatment and a review of antihypertensives for treating hypertension in patients with Diabetes Mellitus.

In Unit 2, Dr. Tan Hwee Huan will discuss about the challenges of initiation of insulin therapy in primary care setting. This article will discuss on the common barriers in insulin initiation and what are the proposed strategies for these barriers.

In Unit 3, Dr. Benjamin Lam Chih Chiang will discuss about biology of weight regulation and how obesity as a disease signify an abnormal physiology and its associated health consequences. Also, a brief update on Intermittent Fasting will be discussed and how it can potentially be a treatment option for obesity.

In Unit 4, Dr. Richard Lee and Dr. Anita Lim will present a case vignette of a patient with multiple chronic diseases with recurrent gout flares. This article will bring you through a step-wise approach on how to initiate Urate Lowering Therapy (ULT), various types of ULT agents, treatment targets and follow-ups.

In Unit 5, Dr. Desmond Wai will present an overview of Non-Alcoholic Fatty Liver Disease (NAFLD): Prevalence, Natural history of NAFLD, diagnostic criteria and management at Primary Care setting.

The selected ten readings by A/Prof Goh Lee Gan included articles on blood pressure goals in patients with various chronic diseases, the association of obesity and Diabetes Mellitus, the relationship between NAFLD, Diabetes Mellitus and Cardiovascular risk, pharmacological and lifestyle management of the common chronic diseases.

## REFERENCES

1. Ministry of Health, Aging Planning Office. Ageing in place in Singapore. Available at: <http://www.gs.org.sg/sg50conference/pdf/s4-1.pdf> [Accessed 24 February 2019]
2. Reddy KS. Global Burden of Disease Study 2015 provides GPS for global health 2030. *The Lancet*. 2016 Oct 8;388(10053):1448-9.
3. Centre for Research on the Economics Of Ageing, Singapore Management University (SMU). 1 in 4 seniors develop chronic condition, early findings show. Available from: [https://crea.smu.edu.sg/sites/crea.smu.edu.sg/files/news/pdf/ST\\_20161112\\_1.pdf](https://crea.smu.edu.sg/sites/crea.smu.edu.sg/files/news/pdf/ST_20161112_1.pdf) [Accessed 24 February 2019]
4. Opening Address by Dr Amy Khor, Senior Minister of State, Ministry of Health, at the Singapore Healthcare Management Congress 2018, 14 August 2018 [Internet]. Available from: <https://www.moh.gov.sg/news-highlights/details/opening-address-by-dr-am-y-khor-senior-minister-of-state-ministry-of-health-at-the-singapore-healthcare-management-congress-2018-14-august-2018> [Accessed 24 February 2019]
5. Choo F. Minimum legal age for smoking raised to 19 from Jan 2019. *The Straits Times* [Internet] 30 Dec 2018 Available from: <https://www.straitstimes.com/singapore/minimum-legal-age-for-tobacco-raised-to-19-years-old-from-jan-1-2019> [Accessed 24 Feb 2019]
6. Brettschneider C, Lühmann D, Raspe H. Informative value of patient reported outcomes (PRO) in health technology assessment (HTA). *GMS health technology assessment*. 2011;7.
7. ACE Agency for Care Effectiveness. About Us [Internet] Singapore: Ministry of Health [updated 7 Nov 2018] Available from: <http://www.ace-hta.gov.sg/about-us.html> [Accessed 24 February 2019]
8. ACE Agency for Care Effectiveness. Appropriate Care Guides [Internet]. Singapore: Ministry of Health [updated 2 Jan 2018] Available from: <http://www.ace-hta.gov.sg/our-guidance.html#acg> [Accessed 24 February 2019]