

DIABETES  
TASKFORCE  
REPORT

## **EXECUTIVE SUMMARY**

1. Type 2 diabetes (T2D) is reaching epidemic proportions in Asia. In 2013, the number of people living with diabetes in Asia-Pacific was 210 million (M) and by 2035, the number is expected to grow to 325M. Diabetes was the largest single cause of total burden of disease in our resident population, accounting for 10.4% of total DALYs. With the inclusion of the burden of cardiovascular diseases attributable to diabetes, the burden increased to approximately 14% of total DALYs.

2. Singapore has been investing in Metabolic Diseases research in a sustained manner over the last 10 years. A number of cohorts that can facilitate diabetes research have been assembled over the years. Some of the cohorts may not necessarily be dedicated to diabetes research but provide useful longitudinal data that is relevant for various studies. Some new cohorts are being formed, mostly funded by industry.

3. In order to identify priority areas in diabetes for the Health and Biomedical Sciences (HBMS) initiative to focus on, the HBMS Diabetes Taskforce (DTF) based its recommendations on burden and impact, concentration of local expertise, and potential for unique Singaporean research contributions. The DTF recommends focusing on two areas of research for the Open Fund – Large Collaborative Grant (OFLCG), with their respective targets detailed as follows:

### **(1) Microvascular Complications of Diabetes**

#### **Targets**

- Reduce blindness and end-stage renal disease (ESRD) due to diabetes by 30% within 10 years in the national population.
- Reduce diabetic microvascular complications by 30% within five years in study populations.
- Due to the overlapping risk factors and causes, it is expected that interventions reducing eye and ESRD will also have a significant effect in reducing other complications such as cardiovascular disease.

### **(2) Primary Prevention of Diabetes.**

#### **Targets**

- Reduce the incidence of diabetes by 20% by 2030.
- Reduce the proportion of undiagnosed diabetics to 30% (currently 50%<sup>1</sup>) by 2025.
- Reduce the progression of gestational diabetes to T2D by 30% by 2025.

4. In developing the five-year roadmap for diabetes research, the DTF outlines the following recommendations to establish a broad portfolio of activities that will add value to both the healthcare system and the economy, while developing a talent pool to take Singapore's healthcare system forward into the next decade:

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<sup>1</sup> National Health Survey 2010:

[https://www.moh.gov.sg/content/moh\\_web/home/Publications/Reports/2011/national\\_health\\_survey2010.html](https://www.moh.gov.sg/content/moh_web/home/Publications/Reports/2011/national_health_survey2010.html) accessed on 9 Jan 2016.

- a. Developing evaluation framework(s) to review the effectiveness and cost-effectiveness of diabetes interventions;
- b. Dedicating resources to support research themes related to the treatment and management of diabetes and its complications;
- c. Dedicating resources to support research areas related to the prevention and management of diabetes through population-wide approaches in the Asian and Singapore context; and
- d. Building (i) the next generation of academic physicians with expertise in primary care reform and population health and (ii) a talent pool in health economics and data sciences.