MOH-CS March 2015

**03/2015 – Latent Tuberculosis Infection (LTBI) survey among foreigners**

**Research Question(s)**

1. What is the baseline prevalence of Latent Tuberculosis Infection (LTBI) among the foreign workers in Singapore?
2. What are the risk factors associated with LTBI?

**Population**:

Foreign workers from countries (i.e. Indonesia, Philippines, Myanmar, China, Vietnam, India, Bangladesh and Malaysia) with annual TB incidence of more than 50 cases per 100,000 per year based on WHO estimates. Population may be further stratified by pass status, nationalities, age and gender.

**Intervention**:

Not applicable.

**Outcome**:

Measures of latent TB infection and identification of risk factors for latent TB foreign workers. If you are proposing a pilot and feasibility study, please include likely primary outcomes for the full study as well as outcomes for the pilot and feasibility in your application form.

**Duration of study**:

Researchers to specify and justify

**Estimated overall budget** (for internal funding estimation):

Estimated S$800,000.

**Design**:

Cross-sectional survey. The blood tests used should be Interferon-Gamma Release Assay (IGRA).

**Setting**:

Any non-healthcare setting

**Public Engagement**:

Proposals should incorporate a mechanism for public involvement, including obtaining consent from the foreign workers for blood taking for LTBI test.

**Background to commissioning brief:**

Persons with latent Tuberculosis infection (LTBI) are infected with the *M. tuberculosis* bacteria, but are healthy, do not manifest any TB symptoms and have normal chest radiographs. Although they are not infectious and cannot spread TB, About 10% of latently infected persons will develop active TB in their lifetime. The risk of developing active TB is increased in persons who are immunocompromised or who have certain medical conditions (e.g. HIV infection, malignancy, end-stage renal failure, diabetes). About half of those who develop active TB will do so within the first two years of infection.

Large numbers of migrants come to Singapore to work, live and study. As some of the migrants may come from countries with higher TB burden, it is important to know the baseline prevalence of LTBI among foreign migrants so as to inform national policies on screening of foreign workers and management of those who may be at risk of developing active TB while in Singapore.

Risk factors for LTBI should be studied and information on past history of TB, BCG vaccination and prior known exposure to TB cases should be recorded as part of this commissioned study.