Increased type 2 diabetes risk in migrants to Sweden from Asia, Africa and the Middle East

Liselotte Schafer
LS Elinder, SN Hakimi, A Lager, E Patterson
Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
Centre for Epidemiology and Community Medicine, Stockholm County Council, Stockholm, Sweden
Contact: liselotte.schafer-elinder@ki.se

Background
The recent migration wave of people from Africa, Asia and the Middle East to Europe represents a challenge for many sectors of society and for public health. In 2015, one in four individuals in Stockholm County was foreign-born. As type 2 diabetes has both genetic and environmental causes, we investigated if global region of birth was associated with type 2 diabetes risk in Stockholm.

Methods
Cross-sectional data from the population-based Stockholm Public Health Survey 2010 (N = 69,115) was combined with registry-based information on country of birth grouped into eight global geographical regions. Cases of type 2 diabetes were identified through self-reported physician-diagnosed diabetes and age at diagnosis. Multivariable logistic regression analysis was performed with region of birth as the independent risk factor, adjusting for age, sex, weight status, educational level, multiple dietary factors, tobacco, alcohol and physical activity.

Results
Type 2 diabetes prevalence was 5.1%. Relative to Swedish-born participants, higher OR were found in those born in Asia (OR 3.2, 95% CI 2.2-4.7), Sub-Saharan Africa (OR 2.5, 95% CI 1.5-4.1) and North Africa/the Middle East (OR 2.1, 95% CI 1.6-2.8), after adjustment for established risk factors. Participants from Eastern Europe and Latin America had an elevated risk but this did not remain after adjustment for other risk factors. Adjustment for time spent in Sweden did not affect the results.

Conclusions
Participants born in Asia, Africa and the Middle East were found to have an increased risk of type 2 diabetes. This increased risk is of particular concern in light of the current migrant situation, as most of the asylum seekers come from these regions. This knowledge should be taken into consideration when allocating resources for type 2 diabetes prevention, surveillance and care.

Key messages:
- Immigrants from Asia, Africa and the Middle East have a 2-3 fold elevated risk of type 2 diabetes compared to Swedish-born adults
- This has implications for prevention, surveillance and care