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**Abstract**

BACKGROUND: Few prospective data from the Asia-Pacific region are available relating body mass index (BMI) to the risks of stroke and ischaemic heart disease (IHD). Our objective was to assess the age-, sex-, and region-specific associations of BMI with cardiovascular disease using individual participant data from prospective studies in the Asia-Pacific region.

METHODS: Studies were identified from literature searches, proceedings of meetings, and personal communication. All studies had at least 5000 person-years of follow-up. Hazard ratios were calculated from Cox models, stratified by sex and cohort, and adjusted for age at risk and smoking. The first 3 years of follow-up were excluded in order to reduce confounding due to disease at baseline.

RESULTS: A total of 33 cohort studies, including 310,283 participants, contributed 2,148,354 person-years of follow-up, during which 3,332 stroke and 2,073 IHD events were observed. There were continuous positive associations between baseline BMI and the risks of ischaemic stroke, haemorrhagic stroke, and IHD, with each 2 kg/m(2) lower BMI associated a 12% (95% CI: 9, 15%) lower risk of ischaemic stroke, 8% (95% CI: 4, 12%) lower risk in haemorrhagic stroke, and 11% (95% CI: 9, 13%) lower risk of IHD. The strengths of all associations were strongly age dependent, and there was no significant difference between Asian and Australasian cohorts.

CONCLUSIONS: This overview provides the most reliable estimates to date of the associations between BMI and cardiovascular disease in the Asia-Pacific region, and the first direct comparisons within the region. Continuous relationships of approximately equal strength are evident in both Asian and Australasian populations. These results indicate considerable potential for cardiovascular disease reduction with population-wide lowering of BMI.