Introduction Hong Kong has implemented the Smokefree legislation since January 2007 and smoking is prohibited in vast public and covered areas thereafter. The Smoke free legislation aims to protect people from exposing to SHS and motivating smokers to quit. This study explored the effect of the legislation on the smoking behaviour and their attitudes of quitting among fathers of newborn babies.

Methods This is a cross-sectional survey on families with a smoking father, a non-smoking mother and an infant under 18 months recruited at the Maternal and Child Health Centres from June 2008 to October 2009. Frequencies showed the changes in fathers’ household smoking behaviour and their attitudes of quitting after the legislation.

Results 1112 fathers completed the baseline questionnaire and their mean age was 35.5 (±7.0) years and had been smoking for 17.9 (±7.2) years. 96% (1054/1097) were aware of the legislation, 27.3% (299/1097) reported they had less SHS exposure and 27% (296/1097) had smoked less at home after the enactment of the legislation. However, the majority of them had no changes in their desire to quit (63.7%, 699/1097), perceived importance of quitting (70.3%, 771/1097) and perceived confidence of quitting (73%, 801/1097) and perceived difficulty of quitting (75.6%, 829/1097) compared before the legislation.

Conclusion This study showed that some fathers improved their smoking behaviours after the Smokefree legislation but a majority had no change in attitudes towards quitting. The HK government should therefore promote the importance of quitting to the public and allocate more resources to the smoking cessation services.