

infant nutrition, could be targeted for possible interventions. This study tested the hypothesis that formula-feeding was associated with type 2 diabetes risk factors in Hong Kong adolescents and examined whether any associations was mediated by infant growth rate.

**Methods:** This is a prospective birth cohort study Hong Kong "Children of 1997". In 2630 birth cohort participants, we clinically assessed type 2 diabetes risk factors, i.e., markers of glucose metabolism (fasting HbA1c, glucose, insulin and HOMA insulin resistance) and other health markers, including body composition (BMI, % body fat, waist-to-height ratio, total muscle mass and hand grip strength), fasting lipid profile and high sensitive C-reactive protein at 17 years. Multivariable linear regression, with multiple imputation and inverse probability weighting, was used to examine the adjusted associations of early infant feeding at 0-3 months (exclusively breastfed, mixed feeding or always formula-fed, collected in infancy) and duration of regular formula milk use (0-2 years, 3-5 years and until 6 years, recalled by mothers at follow-up) with risk factors, adjusted for sex, birth weight, gestational weeks, parity, pregnancy characteristics, highest parents' education attainment, mother's place of birth, age and pubertal stages at follow-up.

**Results:** Compared with exclusively breastfeeding at 0-3 months (7%), always formula-feeding (52%) was associated with higher total cholesterol, LDL cholesterol and triglycerides but not with socio-economic position or any measure of body composition, insulin resistance or low grade inflammation at 17 years, with no indication of interaction by sex or infant growth rate in the first year of life. However there was a graded association of breastfeeding exclusivity in the first three months of life with lower fasting insulin and HOMA-IR (p-for-trend <0.05). The association of infant feeding with lipids was not mediated by infant growth, although accelerated infant growth was associated with greater height, BMI, % body fat and lean mass. Duration of formula milk was not associated with any health markers at 17 years.

**Conclusions:** In Hong Kong where there was little social patterning of breastfeeding, formula feeding was associated with a poorer lipid profile in adolescence but not body composition, suggesting infant nutrition may affect long-term health and disease risks independent of adiposity. Exclusively breastfeeding for three months may be associated with lower insulin resistance in late adolescence.

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## P27-0032

### The Barriers and Facilitators to Undertaking Continuing Professional Education among Private Non-specialist Primary Care Physicians in Hong Kong

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**Background:** Strengthening primary care is seen as an effective strategy to ensure financial sustainability of the current public healthcare system. It is also an achievable measure to alleviate disease burden within the community. In Hong Kong, private primary care physicians (PCPs) play a key role in meeting 70% of the primary care needs. They are encouraged to undertake continuing professional education (CPE) that helps upkeep their medical standards and enhance quality of care.

**Aims and Objectives:** To understand the attitudes, barriers, facilitators and effects of undertaking CPE among the private non-specialist PCPs in Hong Kong, and to suggest policy implications that facilitate greater participation.

**Study Design and Methods:** A combined qualitative and quantitative approach was adopted. Eight focus group interviews were conducted

with a purposive sample of 36 private PCPs. The qualitative findings informed the construction of the cross-sectional survey with a questionnaire which was then mailed to a stratified random sample of 2,567 private non-specialist PCPs.

**Results:** Among the qualitative interviews and 134 valid questionnaire returns, CME lecture (>75%) was reported to be the most frequently engaged format of CPE, followed by online searching for information (65%). Apart from learning and enhancing standards of medical care, attending CME lectures also served as means of socializing and network building. Age was a significant factor associated with the formats of CPE. While older PCPs tended to attend CME lectures more often, their younger counterparts were keener to engage in online search and learning. Certain barriers and facilitators identified were context-specific to private healthcare sector in Hong Kong, such as long clinic hours, high operation costs and organisation of small learning groups. The latter, though the least frequently attended CPE activity among survey respondents, was positively rated on account of its intensity and interactive knowledge exchange along with active support from specialists. Online access to CME learning materials and more opportunities to participate in public sector CPE activities would be welcomed by private PCPs.

**Conclusions:** Despite similar findings from overseas studies, certain barriers and facilitators identified in the present study were context-specific to private non-specialist PCPs in Hong Kong. Implementation of more adaptive measures, such as emphasis on self-directed and practice-based learning and support from public authorities to facilitate CPE learning for the private PCPs, may in turn help reduce the healthcare costs in Hong Kong.

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## P28-0148

### Evaluation of the Introduction of the Reference Framework for Diabetes among Primary Care Physicians in Primary Care Settings

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**Background:** Primary Care Physicians (PCPs) are in a privileged position to provide first-contact and continuous care. A Reference Framework for Diabetes Care (RF-DM) for Adults produced by the Primary Care Office (PCO) aims to provide PCPs a common reference to guide and coordinate care for diabetes patients. We evaluated the adoption levels of RF-DM among PCPs in Hong Kong, and examined the facilitators and barriers associated with its adoption.

**Methods:** The focus group interviews were performed with five main types of PCPs in Hong Kong, including those working in (1) group practice in private health maintenance organizations; (2) solo practice in the private sector; (3) general out-patient clinics; (4) family medicine specialist clinics; and (5) PCPs who obtained fellowships of family medicine and participated in teaching medical students for medical schools. Their perceived facilitators and barriers to adopt the RF-DM were explored. The interviews were audio-taped, transcribed verbatim, and analysed to identify the predictors. We also conducted a cross-sectional questionnaire by sending invitations to PCPs in Hong Kong. The factors independently associated with adoption of the RF-DM were studied by binary-logistic regression models.