

Willingness and expectation for colorectal cancer screening in urban China: a multi-perspective survey

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Background The central government of China initiated Cancer Screening Program in Urban China (CanSPUC) in 2012. Recruited population were provided colonoscopy screening if evaluated as high-risk for colorectal cancer (CRC) by a high-risk factor questionnaire (HRFQ) ahead. This study aimed to assess the willingness and expected compensations of service providers, and to evaluate the acceptance and willingness-to-pay of receivers.

Methods In 16 provinces of CanSPUC program, a multi-centre survey was conducted in two perspectives, one was from service providers' (year 2015-2016), including community health workers who provided HRFQ interview (n=2213) and endoscopic clinicians (n=49); the other was from service receivers' (year 2012-2014), including general population (n=10444) who accepted HRFQ interview and CRC high-risk population (n=2385) who completed colonoscopy examination.

Results 53.6% of community health workers and 63.3% of endoscopic clinicians were willing to provide services. 50.4% of all the providers agreed participating in screening program could bring themselves extra earnings. If compensations for each additional HRFQ interview and colonoscopy amounted to \$2.9 and \$14.4, more than half of

providers would choose to undertake additional work. 80.0% of general population thought the screening procedure of HRFQ interview ahead of clinical examination acceptable. 84.2% of high-risk population could accept colonoscopy screening, and the reasons for unwillingness were mainly unaffordable cost (52.3%) and caused pain (36.5%). Of all the receivers, 65.7% of them had willingness-to-pay for a long-term colonoscopy screening, however, 80.3% of them would pay less than \$14.4.

Conclusions Most providers are willing to offer CRC screening and receivers' acceptance of current screening procedure and technology are optimistic. The concern for pain caused by colonoscopy prompts joint use of other screening technologies. Promotion brought by compensations to providers and limited receivers' willingness-to-pay suggest that sufficient financing should be considered for long-term running of CRC screening program in China.

Key words Colorectal neoplasms; Screening; Willingness; Sustainability; China

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