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Research paper

Economic vulnerability of methadone maintenance patients: Implications for policies on co-payment services

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ABSTRACT

Background: Co-payment for methadone maintenance treatment (MMT) services is a strategy to ensure the financial sustainability of the HIV/AIDS programs in Vietnam. In this study, we examined health services utilization and expenditure among MMT patients, and further explored factors associated with catastrophic health expenditure among affected households.
Methods: A multi-site cross-sectional study was conducted among 1016 patients in two epicentres: Hanoi and Nam Dinh province in 2013.
Results: Overall, 8.2% and 28.7% respondents used inpatient and outpatient health care services in the past 12 months apart from receiving MMT. There were 12.8% respondents experiencing catastrophic health expenditure given MMT is provided free-of-charge, otherwise 63.5% patients would suffer from health care costs. MMT integrated with general health or HIV services may encourage health care services utilization of patients. Patients, who were single, lived in the rural, had inpatient care and reported problems in Mobility were more likely to experience catastrophic health expenditure than other patient groups.
Conclusions: The health care costs are still financially burden to many drug users and remained over the course of MMT that implies the necessity of continuous supports from the program. Scaling-up and decentralizing integrated MMT clinics together with economic empowerments for treated drug users and their families should be prioritized in Vietnam.

Introduction

People who inject drugs (PWIDs) are a key population at increased risk of HIV are considered a major driver of the explosion of HIV in Asia countries (Sharma, Oppenheimer, Saidel, Loo, & Garg, 2009). Recent data estimates that 4.5 million of PWIDs out of 13 million drug users (DUs) live in this region. The financial burden of drug addiction involves not only the costs for this risk behavior but also huge costs for health care services and loss of productivity (Nguyen, Tran, Tran, Le, & Tran, 2014; Tran et al., 2012a, 2013a; Tran, 2013). Murphy and Scott defined the "economic vulnerability as the exposure of a household to exogenous shocks related to the wider global economic crisis and subsequent adoption of austerity policies and the potential for diminishing life satisfaction and quality of life" (Enda Murphy, 2014). In this study, we focused on the burden of health care costs that affected PWIDs and their households. In developing countries such as Vietnam, drug users may spend much higher than average household monthly income, which results in economic burden on households (Tran et al., 2013a). In addition, it has also been a barrier for those who acquired HIV to access and use health care services (Tomori et al., 2014). Illicit drug use is known to reduce significantly adherence to and outcomes of antiretroviral treatment. Therefore, opioid substitution treatment for DUs plays an indispensable role in international HIV/AIDS prevention strategies.

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Currently, methadone maintenance treatment (MMT) has been used as an effective therapy for people dependent on opioids (Burns et al., 2015; Tran et al., 2012b, 2012c, 2012d; Zhou & Zhuang, 2014). In Vietnam, patients have been receiving MMT free-of-charge, however, since international fundings for HIV/AIDS is decreasing rapidly, resource mobilization using co-payment is considered (Tran, 2013; Tran et al., 2012c; Tran, Nguyen, Phan, Nguyen, & Latkin, 2015). Finding from prior reviews demonstrated that MMT minimized the demands of opioid use; crime activities, HIV-related risk behaviors and diseases, as well as promoted HIV/AIDS care services access and improved quality of life (Fareed et al., 2011; Pilgrim, McDonough, & Drummer, 2013; Sun et al., 2015; Wang, Wouldes, & Russell, 2013; Weimer & Chou, 2014). Among drug users living with HIV, MMT also helped reduce healthcare services use and out-of-pocket (OOP) health expenditure (Tran & Nguyen, 2013). Thus, implementing and scaling-up MMT program has been considered a cost-effective intervention in both developed and developing countries (Hsiao et al., 2015; Keshtkaran, Mirahmadizadeh, Heidari, & Javanbakht, 2014; Roncero et al., 2015; Tran et al., 2012c, 2012d, 2012e; Tran, Nguyen, Phan, et al., 2015). The Vietnam Ministry of Health set a target for providing MMT services for 80,000 drug users by 2015 (Nguyen, Nguyen, Pham, Vu, & Mulvey, 2012). During the period of this study, some provinces, for instance, Hai Phong, there were few MMT sites applied the co-payment schemes that patients pay for averagely US$0.5 per day. For other health care services, there was no subsidy and patients or their health insurers are supposed to pay their OOPs money for the services (Tran et al., 2013a).

The public health system in Vietnam is organised into three levels: central, provincial and grassroots (Tran, Van Hoang, & Nguyen, 2013). Primary medical care services are provided throughout the country, however, high reliance on out-of-pocket financing for health exposes households to potential catastrophic expenditures and creates inequality in access to care (Do, Oh, & Lee, 2014). Current estimates showed OOP payments accounted for 30–70% total health expenditure in various settings (Hoang Lan, Laohasiriwong, Stewart, Tung, & Coyte, 2013; Nguyen et al., 2012b; Nguyen, Ivers, Jan, & Pham, 2015; Pham, Kizuki, Takano, Seino, & Watanabe, 2013; Tran et al., 2013a). The percentage of public expenditure in health in the total health spending in Vietnam was estimated to be 40% (Mitra, Palmer, Mont, & Groce, 2015). Model to deliver MMT services varies across settings such as stand-alone or integrating with other health care services (Tran, Nguyen, Phan, et al., 2015). When freestanding model emphasizes the role of confidential services, combination programs facilitate the variety of health service utilized by drug users (Tran et al., 2012a, 2012e). The linkage of MMT service and general health care services were mentioned in the late 1980s, since previous reports suggested the high prevalence of co-morbidities, low frequency of health care use and daily clinic visit to uptake MMT among DUs (Weddington, 1990). By combining different components of health care service into a single site; or providing referral between them, these models give a chance to address the unmet needs of DU for medical services (Tran et al., 2012b; Tran, Nguyen, Phan, et al., 2015). The effectiveness of linked services have been well documented, including promote health care utilization, improve health outcome and treatment adherence (Tran & Nguyen, 2013; Tran et al., 2012b; Tran, Nguyen, Phan, et al., 2015). This model also reduces the health care cost of communities as well as the duplication of services and their administration cost (Kresina, Bruce, Lubran, & Clark, 2008), therefore, it may improve the efficiency of the service delivery system. However, the performance of different integrative models in diverse settings as well as patients' responses has not been examined. In Vietnam, there has been evidence that services quality and socio-cultural and economic factors, rather than geographical barriers, may affect the use of health services in both general and HIV-related populations (Duong, Binns, & Lee, 2004; Nguyen et al., 2015b, 2015c; Tran, Ohinmaa, Nguyen, Nguyen, & Nguyen, 2011; Tran, Van Hoang, et al., 2013). Thus, comparing across models for MMT delivery can provide insights for improving the efficiency of the MMT program.

HIV epidemic in Vietnam is recognized in a concentrated stage, which is primarily driven by unsafe sex with commercial sex workers and illicit drug injection (Tran et al., 2012a; Tran, Nguyen, & Pham, 2014). It is estimated that about 180,000 people are using illicit drug in the country by 2012, of those, 20–50% were contracted HIV/AIDS (National Institute of Hygiene and Epidemiology, 2011). The MMT program has been prioritized in the National HIV/AIDS Strategy and rapidly scaled up nationwide at a daily cost of US$1 per patient (Tran, 2013; Tran et al., 2012e). Recent data reported an approximate of 15,500 DUs enrolling for treatment, with 26.8% were PWIDs (Tran, 2013). Vietnam Ministry of Health targeted covering 80,000 DUs on the program in 2015. The impact of MMT on health services utilization and OOP payments in Vietnam are mentioned in the previous investigation analysis, however, the sample included only those living with HIV/AIDS (Tran & Nguyen, 2013). To date, none of the literature analysed health services utilization and expenditure of drug users over the course of MMT or examined the role of different service delivery models on these outcomes of interest.

This study assessed health service use and OOP health spending of MMT patients in MMT clinics with and without other general health or HIV/AIDS services; and further explored factors associated with catastrophic health expenditure among this patient group.

Materials and methods

Study settings and sampling

A multi-site cross-sectional study was conducted in two Vietnamese epicentres: Hanoi and Nam Dinh from January to August 2013 (Tran, Nguyen, Phan, et al., 2015). The selection of provinces were purposive, in consultation with the Vietnam Authority of HIV/AIDS Control, that included a setting with new MMT sites (Nam Dinh) and a setting with other sites since the first national pilot (Ha Noi) (Tran et al., 2012a, 2012e).

These areas were amongst those with the greatest HIV epidemic in northern Vietnam. Five selected clinics were classified to two delivery models comprised: stand-alone (Provincial AIDS Centre – Nam Dinh) and integrated into general healthcare facilities (Xuan Truong district health center in Nam Dinh provinces; Tu Liem and Long Bien district health centers and Ha Dong regional polyclinic in Hanoi). At these clinics, patients have been receiving MMT free-of-charge. The selection was based on following criteria: (1) These clinic had been providing MMT services; (2) including provincial-, regional- and district-level clinics and (3) having sufficient patients for the study. In this sample we also considered the involvement of rural and urban sites which located in the rural district (Xuan Truong) or urban cities (Table 1). The inclusion criteria for participants were: (1) respondents were 18 years or older; (2) enrolling MMT programs or having requested to participate the program; (3) agreeing to sign in written informed consents and (4) having capacity to answer a 30–45 min interview. All patients met criteria and went to selected clinics during study period were invited to participate in the study. A convenient sample of 1016 participants was recruited in the study.

Measures and instruments

Data was collected by master students and medical doctors with extensive experience with IDU and MMT. Patients were