Willingness to pay for methadone maintenance treatment in Vietnamese epicentres of injection-drug-driven HIV infection

Bach Xuan Tran

Introduction

Over the past decade, there has been a dramatic expansion of services in developing countries to prevent and treat human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS), with substantial support from global health initiatives. During 2000–2008, overall spending on HIV infection and AIDS in low- and middle-income countries increased approximately 10-fold, to US$ 13.7 billion. Rapid and comprehensive responses to the HIV pandemic have substantially improved the health and social well-being of populations in various settings. For example, in the region denoted by the United Nations as Asia and the Pacific, where the burden of HIV infection is second only to that in Africa, there was an average 20% decline in new infections annually during 2001–2009. In addition, widespread scale-up of antiretroviral therapy (ART) has encouraged HIV testing and early access to health-care services and has improved health status and quality of life among people living with HIV infection.

HIV transmission in this region is driven primarily by three high-risk behaviours: unprotected sex between males and female commercial sex workers, injection opioid use (hereafter, “injection drugs”) and unprotected sex between males. Governments can halt and reverse the HIV epidemic and save money if they achieve universal coverage of comprehensive interventions among these high-risk populations.

Ensuring sufficient resources is central to the success and sustainability of HIV programmes. However, budget constraints due to the global economic slowdown make it more difficult for governments to effectively fund multiple competing social and health issues. Viet Nam has one of the fastest growing epidemics of HIV infection in Asia and is experiencing economic and epidemiologic transitions. Although the HIV epidemic in Viet Nam is still in a concentrated stage, the potential for a generalized epidemic is increasing, as indicated by a very high prevalence of HIV infection among high-risk groups and by a hidden epidemic among females. Moreover, resources for HIV services mainly involve funding from international donors, which is rapidly decreasing as Viet Nam emerges as a middle-income country. According to projections of the Vietnamese National HIV Strategic Plan for 2011–2015, over this period the total cost of HIV services will increase by 60%, to approximately US$ 150 million. The costs of ART will increase from 6 to 8% per year and the costs of HIV prevention will double. Meanwhile, the government budget can fund only 6 to 12% of the total cost of all HIV-related services. This has created a sense of urgency in efforts to strengthen the health-care system and ensure the sustainability of interventions for the control of HIV infection.

After accounting for contributions from international donors and the national government, Viet Nam remains nearly 50% short of the resources needed to fund HIV services during 2013–2020. The Vietnamese Ministry of Health identified several potential strategies to reduce this deficit, including decreasing costs, improving efficiency and mobilizing resources from a wide variety of sources, such as co-payments from users of health services. Of the HIV-related services currently offered free of charge, there are several reasons why methadone maintenance treatment (MMT) is of great interest for piloting the co-payment strategy. First, Viet Nam has a large population of people who inject drugs and more than two thirds of the estimated 210,000 individuals with HIV infection use injection drugs. Second, the pilot MMT programme in Viet Nam was proven to be a cost-effective component of HIV prevention and treatment services. Third, it will cost approximately US$ 97 million to reach the national target of 65% MMT coverage.

Objective

Willingness to pay for methadone maintenance treatment (MMT) in three Vietnamese epicentres of injection-drug-driven human immunodeficiency virus (HIV) infection was assessed.

Methods

A convenience sample of 1016 patients receiving HIV treatment in seven clinics was enrolled during 2012. Contingent valuation was used to assess willingness to pay. Interviewers reviewed adverse consequences of injection drug use and the benefits of MMT. Interviewers then described the government’s plan to scale up MMT and the financial barriers to scale-up. Willingness to pay was assessed using double-bounded binary questions and a follow-up open-ended question. Point and interval data models were used to estimate maximum willingness to pay.

Findings

A total of 548 non-drug-users and 468 injection drug users were enrolled; 988 were willing to pay for MMT. Monthly mean willingness to pay among non-drug-users, 347 drug users not receiving MMT and 121 drug users receiving MMT was 10.7 United States dollars (US$) (35.7% of treatment costs), US$ 21.1 (70.3%) and US$ 26.2 (87.3%), respectively (mean: US$ 15.9; 95% confidence interval, CI: 13.6–18.1). Fifty per cent of drug users were willing to pay 50% of MMT costs. Residence in households with low monthly per capita income and poor health status predicted willingness to pay less among drug users; educational level, employment status, health status and current antiretroviral therapy receipt predicted willingness to pay less among non-drug-users.

Conclusion

Willingness to pay for MMT was very high, supporting implementation of a co-payment programme.

Abstracts in العربية, 中文, Français, Русский and Español at the end of each article.
coverage among injection drug users by 2015. Assessing the willingness of users to pay for MMT services will help the government determine effective financing mechanisms and contribute to the sustainability of HIV-related interventions in Viet Nam.

Measurement of willingness to pay could be facilitated using revealed- or stated-preference methods. In health services research, contingent valuation, a stated-preference method, has been extensively used in studies of health-care demand. Contingent valuation techniques use survey methods to ascertain individuals’ valuations of hypothetical scenarios and determine the maximum amount they would be willing to pay for the service they receive. In studies on HIV infection and AIDS, the use of contingent valuation methods and measurement of willingness to pay is still very limited. Few studies have evaluated patients’ willingness to pay for MMT; of these, none was conducted in large epidemics of HIV infection driven by injection drug use and none yielded data that are generalizable to Vietnamese settings.

This article reports findings from a multi-site survey to assess factors associated with willingness to pay for MMT on the part of patients with HIV infection who had a current or past history of injection drug use (hereafter, “drug users”) and those with no history of injection drug use but at least one family member who was assumed to be a drug user (hereafter, “non-drug-users”).

Methods
Survey design and sampling
This study was a part of the 2012 HIV Services Users Survey conducted during January and February 2012 in seven clinics in Hanoi, Hai Phong and Ho Chi Minh City, three Vietnamese epicentres of injection drug use. The survey aimed to inform HIV programme management and policy development in Viet Nam by evaluating various dimensions of quality and outcomes of HIV services from the perspective of patients. A detailed description of the survey design and sampling methods is presented elsewhere.

Survey participants comprised inpatients and outpatients with HIV infection who were attending ART clinics in three district health centres, three provincial hospitals and one central hospital. All patients visiting the clinics during the study period were invited to complete the survey and provided written informed consent if they agreed to participate. A convenience sample of 1016 patients was enrolled in the study.

Measures and instruments
Face-to-face interviews were conducted by well-trained surveyors using structured questionnaires to collect data on socioeconomic characteristics, health status, drug use behaviours and willingness to pay for MMT. Interviewers were health-care professionals working in HIV-related sectors, were not affiliated with the clinics where they invited patients to participate and interviewed patients in designated counselling rooms. Monthly per capita household income was self-reported by patients and included all sources of income for each household member. Household expenditures were estimated on the basis of recurring expenses (e.g. food, utilities, rent and education) in the past month and non-recurring expenses (e.g. construction, health care, furniture, travel and entertainment) in the past year. A household’s capacity to pay for injection drugs was determined on the basis of the household’s non-subsistence spending. Daily expenditures for injection drugs were determined using self-reported data from the year drug users most recently used such drugs and included the costs of heroin and other opiates, needles and other consumable goods. Equivalent costs of these goods in 2011 were estimated. To date, MMT in Viet Nam has been provided free of charge; thus, expenditures associated with injection drugs do not include MMT expenses.

Health status in five dimensions (mobility, self-care, usual activities, pain/discomfort and anxiety/depression) was measured using the five-level EQ-5D (EQ-5D-5L) instrument (EuroQol Group, Rotterdam, Netherlands). Interviewers summarized several aspects of MMT in Viet Nam to ensure that patients had sufficient background knowledge before completing the willingness to pay valuation. Interviewers first reviewed the adverse consequences of injection drug use (e.g. increased risk of HIV transmission, stigma and economic hardship) and the delivery and benefits of MMT (e.g. effectiveness, cost-effectiveness and improved access to health-care services). Interviewers then summarized the government’s plan for scaling up MMT. Although MMT was free as of 2012, interviewers concluded the summary by asserting that, because of decreasing international funding, it will be difficult for the government to expand treatment coverage.

Double-bounded dichotomous-choice questions backed by an open-ended question were used to elicit willingness to pay for MMT. Each patient was first asked whether they were willing to pay US$ 30 monthly for MMT. This initial price was the estimated unit cost for one month of MMT during the pilot MMT programme. If the patient was willing to pay US$ 30 monthly, the interviewer asked whether they were willing to pay double the initial price. If the patient was unwilling to pay US$ 30 monthly, the interviewers asked whether they were willing to pay half the initial price. The question was repeated until the amount that the patient was willing to pay was four times or one fourth the initial price. Patients were then asked, “What is the maximum price you would be willing to pay per month for methadone maintenance treatment?”

Statistical analysis
Student t and χ² tests were used to examine differences in characteristics associated with injection drug use between drug users who were and those who were not receiving MMT. Because willingness to pay was determined on the basis of double-bounded and open-ended questions, a mixture of censored and uncensored data was generated. An interval data model and a simple Tobit model were used to estimate the average amount different patient groups were willing to pay for MMT. In multivariate analysis, determinants of patients’ willingness to pay were examined using a priori-defined socio-demographic characteristics (sex, age, education, marital status and employment status), economic status (per capita household income and capacity to pay), injection drug use behaviours (current use, history of drug rehabilitation programme enrolment, years since first injection drug use and frequency and expense of injection drug use), clinical characteristics (HIV disease stage, CD4+ T-cell count, duration of ART and current receipt of MMT) and health status (slight or worse problems reported in all five EQ-5D-5L dimensions). The reduced model was
constructed using a stepwise forward selection strategy, with variables determined by the log-likelihood ratio test to have $P$-values of $<0.1$ included and those determined to have $P$-values of $>0.2$ excluded. Data were analysed using Stata version 12.0 for Windows (StataCorp. LP, College Station, United States of America).

**Ethics approval**

Ethics approval of the study protocol was granted by the Authority for HIV and AIDS Control at the Vietnamese Ministry of Health and the Health Research Ethics Board at the University of Alberta.

**Results**

**Participant characteristics**

Of 1016 patients, 46.1% were drug users, 36.2% were female, 45.0% completed high school, 64.0% were living with spouses or partners and more than 70% were self-employed or had a stable job. A total of 88.8% were receiving ART, with a mean treatment duration of 3 years. Mean monthly per capita income (± standard deviation) among patients’ households was US$ 99.6 ± 79.6.

**Table 1** describes drug use behaviours among 468 drug users. The mean daily frequency of injection drug use during the most recent period of use was 2 episodes (95% confidence interval, CI: 1.8–2.2), with a mean daily cost of US$ 18.6 (95% CI: 14.4–22.8), or approximately US$ 540 monthly. The Viet Nam Ministry of Health completed the pilot MMT cohort study just before initiation of the 2012 HIV Services Users Survey and planned to scale up the MMT programme during 2012–2020.13 As such, only 121 drug users (25.9%) were receiving MMT. Drug users who were receiving MMT used injection drugs more often and had more admissions in drug rehabilitation programmes than drug users who were not receiving MMT.

**Willingness to pay**

The proportion of patients willing to pay for MMT was high and ranged from 93.3% to 98.2% (Table 2). The mean amount that patients were willing to pay was US$ 15.9 per month (95% CI: 15.9 13.6–18.1) and varied across patient groups. Mean willingness to pay for MMT among non-drug-users, drug users not receiving MMT and drug users receiving MMT was US$ 10.7, US$ 21.1 and US$ 26.2 per month, respectively, which is equivalent to 35.7%, 70.3% and 87.3% of MMT costs per person, respectively. Current drug users who had been enrolled in a drug rehabilitation programme were willing to pay more than others for MMT. Table 3 shows that the percentage of patients who were willing to pay 20% and 50% of MMT costs was 37.1% and 26.2%, respectively, among non-drug-users; 57.5% and 46.1%, respectively, among drug users not receiving MMT; and 67.5% and 56.4%, respectively, among drug users receiving MMT.

Table 4 presents findings of reduced multivariate models used to determine factors associated with willingness to pay for MMT. Drug users were willing to pay a smaller amount for MMT if they were living in households with a lower monthly per capita income, had symptomatic HIV infection and reported having mobility problems. Non-drug-users were willing to pay a smaller amount for
MMT if they had a lower educational level, were unemployed, had a poorer immune status, were receiving ART and had anxiety or depression.

**Discussion**

This study assessed willingness to pay for MMT among patients with HIV infection in three Vietnamese epicentres of injection-drug-driven HIV infection. The majority of patients expressed a willingness to pay for this service. Low per capita income in the household and poor health status predicted a willingness to pay less among drug users; having a lower educational level, being unemployed, having poorer immune status, being on ART and having anxiety or depression were associated with willingness to pay less among non-drug-users.

This is the first study to report the costs of injection drug use among HIV-infected individuals in Viet Nam. Drug users spent an average of US$ 540 per month for opiates, approximately five times the average income per household resident, which places an enormous economic burden on households that are affected by both HIV infection or AIDS and addiction. The findings of this study provide evidence of the benefits of MMT: more than 80% of drug users receiving MMT were not currently using injection drugs and the treatment cost was only 5% of the self-reported costs of injection drugs.\(^{13,14,22}\) The observation that patients were willing to pay an average of US$ 15.9 per month for MMT, or 53% of the costs per person, suggests that they also perceived benefits of MMT.

Willingness to pay in this study is higher than that observed in a survey of the general population in Taiwan, China, where the willingness to pay for drug abuse services was approximately US$ 3.3 per month.\(^{15}\) Bishai et al. estimated a willingness to pay a greater monthly amount for drug rehabilitation in Baltimore, Maryland (US$ 29.2–68.4).\(^{16}\) However, the proportion of patients in that study who were willing to pay the mean per capita income in their household was as high as 16%. This could be because in large injection-drug-driven HIV epidemics, many patients and their households are inordinately hard hit by the twin epidemics of HIV and drug abuse. The deteriorated health status, diminished social well-being and substantial economic burden of drug abuse could be highly correlated with a willingness to pay more for addiction-related health care.\(^{15,16,28,29}\)

The findings of this study have several implications. First is the potential for charging co-payments for MMT to ensure the sustainability of HIV-related interventions in Viet Nam. During the study period, co-payment for MMT was piloted in a clinic in Hai Phong City, where patients paid US$ 10.5 per month. Findings reported here suggest that a co-payment of US$ 15 per month would be acceptable, although a subsidy for low-income individuals should be considered. Second, injection drug users with mobility problems were willing to pay significantly less than those without mobility problems. These individuals composed 45% of surveyed injection drug users, which suggests the importance of decentralizing MMT to reduce geographical barriers to care. Finally, injection drug users who experienced other types of drug rehabilitation before taking MMT were more willing to pay for treatment and willing to pay a much greater amount than injection drug users with no history of drug rehabilitation. This indicates a possible preference for MMT among patients who are seeking therapy for drug abuse.\(^{33}\)

The study’s strengths include its large sample size and recruitment at central, provincial and district clinics in three Vietnamese epicentres of injection-drug-driven HIV infection. In addition, the point and interval statistical approach were used, accounting for...
Table 4. Factors associated with willingness to pay for methadone maintenance treatment (MMT) among HIV-infected Vietnamese patients, by injection drug use (IDU) status

<table>
<thead>
<tr>
<th>Factor</th>
<th>IDU coefficient (95% CI)</th>
<th>No IDU coefficient (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health service administration level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>Provincial</td>
<td>6.9 (−4.5 to 18.2)</td>
<td>6.6** (0.9 to 12.4)</td>
</tr>
<tr>
<td>Educational level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>High school</td>
<td>−7.5 (−18.7 to 3.7)</td>
<td>8.6** (2.9 to 14.2)</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>−26.4*** (−39.2 to −13.6)</td>
<td>−10.9* (−23.8 to −2.0)</td>
</tr>
<tr>
<td>Self-employed</td>
<td>9.4*** (2.3 to 16.4)</td>
<td></td>
</tr>
<tr>
<td>Stable paying job</td>
<td>8.8** (0.8 to 16.8)</td>
<td></td>
</tr>
<tr>
<td>Income quintile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richest</td>
<td>Reference</td>
<td>4.1 (−2.0 to 10.3)</td>
</tr>
<tr>
<td>Poor</td>
<td>−10.9* (−23.8 to −2.0)</td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>9.8*** (3.3 to 16.3)</td>
<td></td>
</tr>
<tr>
<td>Stage of HIV infection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>Symptomatic</td>
<td>−11.7*** (−22.2 to −1.2)</td>
<td>−10.1** (−19.7 to −0.5)</td>
</tr>
<tr>
<td>AIDS</td>
<td>−4.1 (−2.0 to 10.3)</td>
<td></td>
</tr>
<tr>
<td>≤ 200</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>&gt; 200 but ≤ 350</td>
<td>9.8*** (3.3 to 16.3)</td>
<td></td>
</tr>
<tr>
<td>&gt; 350 but ≤ 500</td>
<td>10.5 (−2.5 to 23.4)</td>
<td>7.0* (−0.7 to 14.6)</td>
</tr>
<tr>
<td>ART duration, years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART naive</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>≤ 1</td>
<td>−8.9 (−22.3 to 4.6)</td>
<td>−13.0** (−23.4 to −2.6)</td>
</tr>
<tr>
<td>&gt; 1 but ≤ 2</td>
<td>−6.7 (−17.7 to 4.3)</td>
<td>−10.3** (−20.2 to −0.4)</td>
</tr>
<tr>
<td>&gt; 2 but ≤ 4</td>
<td>−10.1** (−19.7 to −0.5)</td>
<td></td>
</tr>
<tr>
<td>&gt; 4 but ≤ 7</td>
<td>−12.8** (−23.3 to −2.4)</td>
<td></td>
</tr>
<tr>
<td>Health status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobility problems</td>
<td>−10.1** (−19.7 to −0.5)</td>
<td></td>
</tr>
<tr>
<td>Self-care problems</td>
<td>−10.3** (−20.2 to −0.4)</td>
<td></td>
</tr>
<tr>
<td>Anxiety/depression</td>
<td>−12.8** (−23.3 to −2.4)</td>
<td></td>
</tr>
<tr>
<td>History of drug rehabilitation</td>
<td>1.2 (−0.3 to 2.7)</td>
<td></td>
</tr>
<tr>
<td>Years since first IDU</td>
<td>−0.8 (−2.2 to 0.6)</td>
<td></td>
</tr>
<tr>
<td>Being on MMT</td>
<td>4.3 (−3.5 to 12.2)</td>
<td></td>
</tr>
</tbody>
</table>

AIDS, acquired immunodeficiency syndrome; ART, antiretroviral therapy; CI, confidence interval; HIV, human immunodeficiency virus. *P < 0.1; **P < 0.05; ***P < 0.01. Note: Empty cells denote variables that were excluded in multivariate regression analyses.

Competing interests: None declared.

Willingness to pay for methadone treatment in Viet Nam

 Malaysian

The research conducted was a cross-sectional study conducted in four public hospitals in Malaysia. The purpose of the study was to assess the willingness to pay for methadone treatment among HIV-positive patients. The study found that patients were willing to pay for methadone treatment, with the average willingness to pay being RM 350 per month. The study also found that patients with higher levels of education and income were more willing to pay for methadone treatment. The study concluded that methadone treatment is a viable option for HIV-positive patients in Malaysia.

In conclusion, the results of this study suggest that methadone treatment is an affordable option for HIV-positive patients in Malaysia. Further research is needed to assess the long-term effects of methadone treatment on HIV-positive patients.
Willingness to pay for methadone treatment in Viet Nam

Bach Xuan Tran

Research

Background

Voluntary treatment with methadone (VTM) is a major worldwide strategy to reduce drug addiction and improve the quality of life of opioid addicts. However, the high cost of methadone maintenance treatment (MMT) makes it difficult for many people to access. In Viet Nam, the Ministry of Health has gradually increased the fee for MMT, which has made it even more inaccessible for the poor. To understand the willingness to pay for MMT, a survey was conducted in 1016 patients from seven hospitals in 2012. The results showed that 548 non-drug users and 468 drug users were willing to pay for MMT, with an average of 15.9%愿意支付更少费用 ; 在非吸毒者中, 教育程度、就业状况、健康状况不良和当前接受抗逆转录病毒治疗的用户预测愿支付更少费用。结论 支付 MMT 的意愿非常高，有助于实施共付计划。

Resumo

Voluntade de pagar por el tratamiento de entretien à la méthadone dans les épicentres vietnamiens d'infection par le VIH

Objectif On a évalué la volonté de payer pour le traitement d'entretien à la méthadone (TEM) dans trois épicentres vietnamiens d'infection par le virus de l'immunodéficience humaine (VIH) résultant de l'injection de drogue.

Méthodes Un échantillon de commodité de 1016 patients, recevant un traitement VIH dans sept cliniques, a été effectué en 2012. L'évaluation contingente a été utilisée pour évaluer la volonté de payer. Les enquêteurs ont examiné les conséquences néfastes de l'utilisation de drogues injectables, ainsi que les obstacles financiers relatifs. La volonté de payer a été évaluée à l'aide de questions binaires doublement liées et d'une question ouverte de suivi. Des modèles de données par point et par intervalle ont été utilisés pour estimer la volonté maximale de payer.

Résultats Un total de 548 non-toxicomanes et de 468 utilisateurs de drogues injectables ont été interrogés, 988 étaient prêts à payer pour le TEM. Le montant mensuel que les non-toxicomanes, les 347 toxicomanes ne recevant pas le TEM et les 121 toxicomanes recevant le TEM étaient disposé à payer s'élevait à 10.7 $ (moyenne: 15.9 $ / CI: 13.6 à 18.1) de chaque toxicomane. Cinquante pour cent des consommateurs de drogues étaient prêts à payer 50% des coûts du TEM.

Conclusion La volonté de payer pour le TEM était très élevée, ce qui soutient la mise en œuvre d'un programme de copaiement.
En 2012, se inscribió una muestra de 1016 pacientes. Del total de participantes, 548 fueron no consumidores de drogas, y 468 consumidores de drogas inyectables. De los no consumidores de drogas, 988 de ellos proporcionaron datos sufficientes para el análisis, y de los consumidores de drogas, 468 de ellos proporcionaron datos suficientes para el análisis. En total, se inscribieron un total de 548 no consumidores de drogas y 468 consumidores de drogas inyectables, 988 estaban dispuestos a pagar por el tratamiento de mantenimiento con metadona.

**Resultados**
Se inscribieron un total de 548 no consumidores de drogas y 468 consumidores de drogas inyectables; 988 estaban dispuestos a pagar por el tratamiento de mantenimiento con metadona. La disposición media mensual a pagar entre los no consumidores, 347 consumidores de drogas que no recibían tratamiento de mantenimiento con metadona y 121 consumidores de drogas que recibían tratamiento de mantenimiento con metadona fue de 10,7 dólares estadounidenses (USD) (35,7% de los costes de tratamiento), USD 21,1 (70,3%) y USD 26,2 (87,3%), respectivamente (media: USD 15,9; intervalo de confianza del 95%, IC: 13,6 a 18,1). El cincuenta por ciento de los consumidores de drogas estaba dispuesto a pagar el 50% de los costes del tratamiento de mantenimiento con metadona. Se predijo una menor disposición a pagar entre los consumidores de drogas procedentes de unidades familiares con un ingreso mensual per cápita bajo y con un estado de salud precario. El nivel educativo, la situación laboral, el estado de salud y la recepción de la terapia antiretroviral actual predijeron una menor disposición a pagar entre los no consumidores de drogas.

**Conclusión**
El grado de disposición a pagar por el tratamiento de mantenimiento con metadona era muy alto, lo que respalda la puesta en marcha de un programa de copago.

---

**References**


Willingness to pay for methadone treatment in Viet Nam

Bach Xuan Tran


29. Lang HC, Lai MS. Willingness to pay to sustain and expand National Health Insurance services in Taiwan. BMC Health Serv Res 2008;8:261. doi: http://dx.doi.org/10.1186/1472-6963-8-261 PMID:19091093