Original Research

Contingent valuation and pharmacists' acceptable levels of compensation for medication therapy management services

Junling Wang, Ph.D.*, Song Hee Hong, Ph.D.

College of Pharmacy, University of Tennessee Health Science Center, Department of Pharmaceutical Sciences, Division of Health Outcomes and Policy Research, 881 Madison Avenue, Room 221, Memphis, TN 38163, USA

Abstract

Background: Pharmacists' acceptable level of compensation for medication therapy management (MTM) services needs to be determined using various economic evaluation techniques.

Objectives: Using contingent valuation method, determine pharmacists' acceptable levels of compensation for MTM services.

Methods: A mailing survey was used to elicit Tennessee (U.S.) pharmacists' acceptable levels of compensation for a 30-minute MTM session for a new patient with 2 medical conditions, 8 medications, and an annual drug cost of $2000. Three versions of a series of double-bounded, closed-ended, binary discrete choice questions were asked of pharmacists for their willingness to accept (WTA) for an original monetary value ($30, $60, or $90) and then follow-up higher or lower value depending on their responses to the original value. A Kaplan-Meier approach was taken to analyze pharmacists' WTA, and Cox's proportional hazards model was used to examine the effects of pharmacist characteristics on their WTA.

Results: Three hundred and forty-eight pharmacists responded to the survey. Pharmacists' WTA for the given MTM session had a mean of $63.31 and median of $60. The proportions of pharmacists willing to accept $30, $60, and $90 for the given MTM session were 30.61%, 85.19%, and 91.01%, respectively. Pharmacists' characteristics had statistically significant association with their WTA rates.

Conclusions: Pharmacists' WTA for the given MTM session is higher than current Medicare MTM programs' compensation levels of $15-$50 and patients' willingness to pay of less than $40. Besides advocating for higher MTM compensation levels by third-party payers, pharmacists also may need to charge patients to reach sufficient compensation levels for MTM services.
© 2015 Elsevier Inc. All rights reserved.

Keywords: Medication therapy management services; Contingent valuation; Pharmacists; Compensation; Willingness to accept

* Corresponding author. Tel.: +1 901 448 3601; fax: +1 901 448 4731.
  E-mail address: jwang26@uthsc.edu (J. Wang).

Introduction

Pharmacy organizations and pharmacy practitioners have long envisioned pharmacists' expanded roles in providing patient-centered services.[1] As a result, contemporary pharmacy practice has evolved from a narrower focus of medication distribution to a more clinical paradigm where pharmacists provide patient-centered medication therapy and disease management services.[2] Patient-centered services provided by pharmacists historically have been referred to as pharmaceutical care, disease state management, cognitive service, clinical pharmacy service, and medication therapy management (MTM) services.[1] Besides offering increasingly established clinical and economic benefits,[3-5] MTM services offer an alternative source of revenue for pharmacists.[6,7] Currently, pharmacies keep only approximately 29% of the revenue as profit from selling merchandise; the remaining 71% covers the cost of purchasing the merchandise.[6,7] However, all revenue from MTM services can be used to increase profit for pharmacies except for some marginal practice costs.[6,7] Additionally, the Medicare Prescription Drug & Modernization Act (MMA) of 2003 provides a tremendous opportunity for pharmacists: MMA requires prescription drug plans for Medicare beneficiaries to offer MTM services for targeted individuals;[8] MMA mentioned only pharmacists when citing examples of types of professionals that can provide MTM services.[8]

Despite the historical opportunity for pharmacists to provide MTM services offered by MMA, it has been a consistent challenge for pharmacists to receive adequate compensation for MTM services. Because MTM services are paid out of administrative costs according to MMA, providing MTM services does mean additional costs to prescription drug plans.[8] Nutescu and Klotz pointed out the following barriers for MTM compensation for pharmacists: (1) third-party payers' lack of knowledge and understanding of pharmacists' expertise in pharmacotherapy and pharmacists' important role in patient care, (2) the lack of appropriate billing codes for pharmacists' services and the lack of the adoption of the existing billing codes for MTM services, and (3) the lack of understanding by pharmacists of reimbursement mechanisms related to MTM services.[1]

One additional challenge for pharmacists when providing MTM services is compensation level. When charged with developing a payment evaluation methodology for the sustainable development of MTM services, the Lewin Group[9] reported that the "the rule of thumb" payment service suggested by survey respondents was $2.00-$3.00/min. In a recent study, Wang et al[10] reported that pharmacists' acceptable level of compensation for MTM services was $1.44/min or $86.4/h. The Lewin Group[9] also reported that many of the existing payment levels for MTM services are lower than "the rule of thumb" level. The acceptable levels of compensation for MTM services reported by Wang et al, despite being a possible underestimate,[10] were also higher than the current payment level of $30-$100/h as summarized by Boyd et al.[11]

Indeed, multiple studies have all reported that inadequate compensation has become a barrier for pharmacists to provide MTM services. For example, according to Lounsbery et al,[12] the most common barriers to providing MTM services among those providing such services with compensation were lack of adequate compensation (reported by 70.8% of survey responders), followed by the inability to obtain compensation (67.3%) and absence of recognition as a provider (62.2%). The most common barriers to providing MTM services among those providing MTM services without compensation were also related to compensation.[12] For another example, Moczygemba et al[13] reported that pharmacists believed that compensation and time were the most challenging barriers to MTM provision. The study by Wang et al also reported that when pharmacists were asked to select their top 2 challenges for MTM provision, 33.89% cited inadequate compensation as the second most frequently cited reason only after time, which was cited by 70.13% of survey respondents.[10]

Decision makers need to consider pharmacist preferences when determining acceptable levels of compensation for MTM services. However, only 1 comprehensive study so far has been conducted on pharmacists' acceptable levels of compensation for MTM services.[10] In that study, Wang et al conducted a conjoint analysis based on a preference-based fractional factorial design using a mailing survey among Tennessee pharmacists.[10] Conjoint analysis elicits willingness to pay (WTP) or willingness to accept (WTA), depending on whether an individual is expected to pay or to be compensated, for cost-benefit analysis (CBA).[14] CBA is an economic evaluation technique that expresses both costs and benefits in monetary terms when comparing different courses of action.[14] CBA enables decision makers to determine the net benefit of courses of action by subtracting costs from benefits, which makes