



# Patients' willingness to pay for pharmacist-provided menopause and hormone replacement therapy consultations<sup>☆</sup>

Jamie C. Barner, R.Ph., Ph.D.<sup>\*</sup>,  
Andrea Branvold, R.Ph., M.S.

*The University of Texas at Austin, Center for Pharmacoeconomic  
Studies and Pharmacy Administration Division, PHAR-PHARMACY ADMIN,  
Austin, TX 78712-0127, USA*

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## Abstract

*Objective:* To determine what women would be willing to pay for pharmacist-provided menopause and hormone replacement therapy consultations and the relationship between willingness to pay (WTP) and patients' perceptions of importance of resolving menopausal symptoms, their satisfaction with physician services, their perceptions of pharmacists' abilities, and income.

*Methodology:* A convenience sample of 203 adult women using medications to treat menopause was recruited by their pharmacists. A self-administered survey was used to address the study objectives. The contingent valuation method was used to assess WTP in 4 scenarios (ie, 50% and 100% improvement in symptoms after a half-hour initial and a half-hour follow-up visit, respectively). Logistic regression analyses were used to assess the relationship between WTP and the independent variables.

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<sup>\*</sup> Corresponding author. Tel.: +1 512 471 5612; fax: +1 512 471 8762.

*E-mail address:* [jbarner@mail.utexas.edu](mailto:jbarner@mail.utexas.edu) (J.C. Barner).

*Results:* Two hundred and three surveys were returned resulting in a response rate of 41%. Across all 4 scenarios, at least 85% of women surveyed were willing to pay a minimum of US \$20 for pharmacist-provided menopause and hormone replacement therapy services. Respondents were willing to pay a median of US \$40 (for both 50% and 100% improvement) per half-hour for initial consultations, and US \$20 and US \$40 (50% and 100% improvement, respectively) per half-hour for follow-up consultations. Regression analyses revealed that across all 4 scenarios, patients' perceptions of pharmacists' abilities and income were significantly and positively ( $P < .05$ ) related to WTP for menopause and hormone replacement therapy counseling.

*Conclusion:* This study showed that most women surveyed were willing to pay for pharmacist-provided hormone replacement therapy and menopause counseling services and that the WTP amounts increased as patients' perceptions of pharmacists' abilities and income increased. If pharmacists can effectively educate the public about their capabilities and expertise, they may discover that they have a new niche opportunity.

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*Keywords:* Willingness to pay; Pharmacy services; Menopause; Hormone replacement therapy

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## 1. Introduction

As the baby boomer generation continues to age, it is expected that within the next decade, 21 million American women will enter menopause.<sup>1</sup> Menopause is a natural biologic event that is characterized by the cessation of menses resulting from loss of ovarian follicular function. The erratic hormone secretion and loss of ovulation can cause vasomotor (eg, hot flashes, sleep disturbances, and night sweats), cognitive (eg, memory loss, depression, mood swings, and lack of concentration), and genitourinary (eg, reduced vaginal lubrication, vaginal irritation and itching, loss of libido, urinary tract infections, and incontinence) symptoms, all of which may adversely affect quality of life.<sup>2,3</sup>

The most common treatment for the symptoms of menopause is hormone replacement therapy (HRT). The term HRT is widely used to describe the administration of estrogens, with or without a progestogen, to perimenopausal and postmenopausal women.<sup>4</sup> Along with treating the acute symptoms of menopause, HRT also has long-term benefits. Several studies have shown that the use of estrogen has been instrumental in the reduction of fractures,<sup>5,6</sup> and until a recent report,<sup>7</sup> estrogen was also thought to have cardiovascular benefits.<sup>8,9</sup> Although these treatments are available, they can only benefit the patient if they are taken correctly. It is well known that adherence and persistence with HRT are suboptimal, with adherence rates ranging from 8% to 30%,<sup>10-13</sup> and persistence rates of approximately

40%.<sup>10,11</sup> The two most cited reasons for discontinuing therapy were fear of cancer<sup>14,15</sup> and bleeding.<sup>16,17</sup>

Although information on HRT is widely available through the lay press, Internet, and print media, it is oftentimes contradictory. Since up to 70% of women use nonprovider information sources to learn about menopause and HRT, it is not surprising that they may become perplexed.<sup>18,19</sup> The heightened awareness about menopause and HRT, along with the appearance of contradictory information, will generate countless questions and concerns among menopausal women. In fact, one study indicated that women want more information on menopause and HRT therapy than what is currently being provided by their physicians.<sup>20</sup>

Unmet needs among patients provide an opportunity for pharmacists to be an information source and to assist women with symptom management, medication adherence, and/or disease prevention and management. Opportunities exist for pharmacists to fill this need, but because of reimbursement issues, it may be necessary for pharmacists to request payment from the patient. The willingness to pay (WTP) approach has been used to assess the value of pharmacy services.<sup>21-29</sup> Willingness to pay is a method that can value intangible benefits of a disease or condition by determining how much people are willing to pay to reduce an adverse health outcome. It is grounded in welfare economic theory and captures patient preferences and intangible benefits such as quality of life. In quantifying intangible benefits, WTP values can be incorporated in the cost benefit analysis method, which is a pharmacoeconomic one that can assess whether the outcomes (benefits) of a program or intervention outweigh the inputs (costs). Cost benefit analysis is unique in that both the costs and the benefits are monetized. It is also controversial because of the methods used to monetize indirect (productivity) and intangible (pain, suffering, quality of life) outcomes.

Critics of the WTP method question the validity of responses because of the various methods used to elicit dollar values as well as the hypothetical nature of the health care benefit. Because of these criticisms, many of the studies in the health care literature attempt not only to determine actual WTP amounts, but also to further establish its construct validity by investigating factors related to WTP.<sup>30-33</sup> The most common independent variables used in these studies are income and health status/severity. Theoretically, income should be positively correlated with WTP values, as should increasing disease severity. The present study also hypothesized that patients who had higher perceptions of their pharmacists' abilities and those who were dissatisfied with their physician services were willing to pay more.

In general, studies have shown that patients are willing to pay for pharmaceutical care services.<sup>21-28</sup> A national study conducted by the American Pharmaceutical Association in 1982 showed that 31% to 57% of patients were willing to pay for clinical pharmacy services.<sup>21</sup> A more recent study indicated that over half of the respondents (55%-56%) would

be willing to pay for pharmaceutical care services.<sup>22</sup> Suh<sup>23</sup> assessed WTP for reducing medication-related problems and found that 60% of respondents would pay out-of-pocket for pharmacy services related to the highest risk category of medication-related problems. Although other studies in the literature have investigated specific services such as counseling for non-prescription medications,<sup>24</sup> outpatient clinics,<sup>25</sup> blood level services,<sup>26</sup> diabetes disease state management,<sup>27</sup> and asthma disease state management,<sup>28</sup> there is no information, to date, regarding whether or not patients would be willing to pay for pharmacist-provided HRT and menopause counseling.

The specific objectives for this study were to determine (1) what patients were willing to pay for pharmacist-provided menopause and HRT consultations, and (2) the relationship between WTP and patients' perceptions of the importance of resolving menopausal symptoms, satisfaction with physician services, patients' perceptions of pharmacists' abilities, and income.

## **2. Patients and methods**

### *2.1. Study design and sample*

A nonexperimental cross-sectional study design was used. Pharmacists were recruited to participate in the study during an international Professional Compounding Centers of America, Inc meeting. Three hundred pharmacists were in attendance and 50 agreed to participate. Most (96%) of the pharmacists who participated in the study were independent pharmacists located throughout the United States. Each pharmacist was asked to select 10 patients for study inclusion based on the following criteria: (1) patient must be on HRT prescribed by a physician and (2) patient must get HRT prescriptions filled at the pharmacy where the survey is administered. The expected sample for this study was 500 (50 pharmacists with 10 patients each).

### *2.2. Survey instrument*

The survey instrument was developed to encompass the study objectives. The independent variables were chosen by reviewing the literature to identify variables typically related to WTP and those used to establish construct validity (income and disease severity). In addition, pharmacists interested in providing this service received feedback from patients regarding their confusion about HRT and the lack of information provided by their physicians.

### 2.2.1. Menopause symptoms and HRT

As mentioned previously, increased disease severity is typically positively related to WTP; thus, the first section of the survey assessed the frequency and severity of menopausal symptoms before and after taking HRT. In addition, study participants were asked to indicate the importance of resolving various menopausal symptoms. The following 5-point Likert-type scales were used to measure frequency, severity, and importance: *frequency*—1 = never, 2 = sometimes, 3 = half of the time, 4 = often, and 5 = always; *severity*—1 = not severe, 2 = slightly severe, 3 = moderately severe, 4 = very severe, 5 = extremely severe; *importance*—0 = not applicable, 1 = not important, 2 = slightly important, 3 = moderately important, 4 = very important, 5 = extremely important.

### 2.2.2. Satisfaction with physician services and perceptions of pharmacists' abilities

This section of the survey was designed to capture the respondents' assessment of physician services and pharmacists' abilities. It was hypothesized that patients not satisfied with the services provided by their physicians and more confident in pharmacists' abilities would be willing to pay greater amounts for pharmacist services. Respondents were asked to rate their level of agreement with a series of statements regarding their satisfaction with menopausal and HRT-related services received from their physician. They were also asked to rate their level of agreement with a series of statements regarding their perceptions of pharmacists providing menopause and HRT consultations. The following 5-point Likert scale was used: 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, and 5 = strongly agree.

### 2.2.3. Willingness to pay for pharmacist consultations

There are 2 main components of a WTP question: the hypothetical scenario and a bidding vehicle. To develop the WTP questions, pharmacists who provided menopause and HRT counseling were consulted regarding their services and typical fees. In this study, respondents were provided with a description of a "hypothetical" pharmacist-provided menopause and HRT counseling service. The scenario indicated that the half-hour consultation would result in a 50% improvement in their condition. The questions were repeated assuming a 100% improvement in their symptoms. This was done to further test construct validity of the WTP measure by examining the scope effect. Theoretically, as the size of the benefit increases (eg, increase in 50% to 100% symptom resolution), the WTP amount should increase as well.

Patients were given a range of WTP amounts and asked to indicate their maximum WTP. The choice of payment amounts (ie, payment card) ranged from US \$0 to US \$160 (in US \$20 increments) per half-hour. The following

sociodemographic information was collected: age, race, income, and education.

### *2.3. Data collection*

This study was approved as exempt by The University of Texas Institutional Review Board prior to data collection. The survey was anonymous and the respondents' completion of the survey served as their consent to participate in the study. The questionnaire was pretested for content validity and readability using a sample of 10 patients, who met the study criteria, as well as with other researchers. Based on pilot testing, the instrument was moderately revised by improving the clarity of certain questions. Each packet of surveys that was sent to a pharmacist contained 10 surveys, 10 cover letters to patients, and 1 cover letter to the pharmacist. To maintain confidentiality of responses, each survey packet also contained envelopes in which the patients could seal the questionnaire once it was completed. In addition, the packet contained a postage-paid envelope in which the pharmacist could return the completed questionnaires to the principal investigator. Reminder postcards were sent to pharmacists at 3 weeks and again at 4 weeks after the initial mailing. Data collection began in October 2001 and lasted approximately 2 months.

### *2.4. Data analysis*

The response data were entered into Statistical Analysis System version 8.12 (Cary, NC) and verified by the researchers. Frequency and mean summary statistics were run for all variables. For the importance of resolving menopausal symptoms, individual symptom importance scores were summed and divided by the number of symptoms to produce mean importance. To test reliability, Cronbach's alphas were calculated for the satisfaction with physicians and the perceptions of pharmacists' abilities scales. To assess the relationship of selected variables (ie, importance of resolving menopausal symptoms, satisfaction with physician services, patients' perceptions of pharmacists, and income) with WTP, logistic regression analyses were used. An a priori significance level of 0.05 was used for all analyses.

## **3. Results**

### *3.1. Response rate*

Each of the 50 pharmacists was asked to distribute 10 questionnaires. Of the 500 questionnaires distributed, 203 were returned, which represented a response rate of 41%.

### 3.2. Respondent characteristics

The respondents were predominately Caucasian (94.4%) with a mean age of 53 years (SD = 9). Approximately 32.5% of the respondents had completed some college, 31.5% had a bachelor's degree and 14.2% had a graduate degree. Income levels for almost half of the respondents (47.7%) were between US \$25,000 and US \$75,000.

### 3.3. Menopausal symptoms and hormone replacement therapy

The respondents experienced various menopausal symptoms before and after taking HRT. The most common symptoms *before* taking HRT were hot flashes (Mean = 3.0, SD = 1.4), mood swings (Mean = 3.2, SD = 1.2), night sweats (Mean = 3.1, SD = 1.4), and loss of libido (Mean = 3.2, SD = 1.3). These symptoms were all experienced at least half of the time. Overall, respondents reported the severity of their symptoms before taking HRT to be moderate (mean range 2.7-3.3). The most common symptoms experienced *after* taking HRT were loss of libido (Mean = 2.6, SD = 1.3) and vaginal dryness (Mean = 2.3, SD = 1.2). The severity of loss of libido was moderate (Mean = 2.8, SD = 1.3), while that of the other symptoms was only slight. Overall, the respondents rated the importance of getting their symptoms under control as “not important” to “slightly important” (Mean = 1.5, SD = 1.1).

### 3.4. Satisfaction with physician services

The respondents were asked to indicate their level of agreement with the statements regarding their satisfaction with specific physician services. The services that were rated highest for satisfaction were their physicians' compassion, willingness and ability to help them solve problems, and ability to help them feel better (see Table 1). The service that was rated lowest was physicians' follow-up with progress on their current HRT regimen. The overall scale mean showed that respondents were “not sure” about their satisfaction with physician services.

### 3.5. Respondents' perceptions of pharmacists' abilities

The respondents indicated general agreement with item statements regarding pharmacists' abilities (see Table 2). The services rated the highest by the respondents were pharmacists' ability to communicate with their physicians to help solve their menopausal problems, and make recommendations on nutritional supplements or over-the-counter products. Both scales (ie, satisfaction with physician services and perceptions of pharmacists' abilities) met the 0.70 acceptable level for reliability.<sup>34</sup>

Table 1

Respondents' mean level of agreement with statements regarding satisfaction with physician menopause and HRT-related services

Statement	N	Mean <sup>a</sup>	SD
I am satisfied with the information given to me by my physician about menopause and HRT.	191	3.3	1.2
I am satisfied with the amount of time that I am able to spend with my physician discussing menopause and HRT.	192	3.4	1.2
I am satisfied with my physician's answers to my questions regarding menopause and HRT.	192	3.4	1.2
I am satisfied with my physician's follow-up on my progress with my current HRT regimen.	190	3.2	1.2
I am satisfied with my physician's willingness to help me solve my menopausal and HRT problems.	191	3.5	1.1
I am satisfied with my physician's compassion regarding my concerns or problems with menopause and HRT.	191	3.6	1.2
I am satisfied with my physician's ability to help me feel better.	191	3.5	1.1
Overall scale mean (SD) = 3.4 (1.0)			
Overall scale alpha = 0.95			

<sup>a</sup> 1 = Strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, 5 = strongly agree.

### 3.6. Analysis of objectives

There were 2 main objectives of this study. The first was to determine what patients were willing to pay for pharmacist-provided menopause and HRT consultations. Table 3 shows that respondents were willing to pay more for initial consultations than for follow-up consultations. The results also showed

Table 2

Respondents' level of agreement with statements regarding pharmacists' abilities to provide menopause and HRT consultations

Statement	N	Mean <sup>a</sup>	SD
Pharmacists can take adequate time to listen to your problems about menopause and HRT.	193	4.1	0.8
Pharmacists are qualified to help solve your menopause and HRT-related problems.	196	4.1	0.8
Pharmacists can communicate with your physician to help solve your problems.	195	4.3	0.7
Pharmacists can make recommendations on nutritional supplements or over-the-counter products.	196	4.3	0.7
Pharmacists can offer alternatives to your current HRT therapy.	195	4.2	0.8
Pharmacists can do research for you regarding your specific situation.	196	4.2	0.8
Overall scale mean (SD) = 4.2(0.6)			
Overall scale alpha = 0.89			

<sup>a</sup> 1 = Strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, 5 = strongly agree.

Table 3  
Mean and median WTP across various scenarios (N = 193)

	Mean (SD)	Median
WTP for an initial half-hour consultation that would lead to		
50% improvement in symptoms	US \$42.07 (US \$30.27)	US \$40
100% improvement in symptoms	US \$65.60 (US \$42.80)	US \$40
WTP for a follow-up half-hour consultation that would lead to		
50% improvement in symptoms	US \$33.68 (US \$26.60)	US \$20
100% improvement in symptoms	US \$51.40 (US \$36.61)	US \$40

that respondents were willing to pay more for 100% improvement than for 50% improvement. Frequency distributions (Figure 1) revealed that at least 85% of the respondents would pay a minimum of US \$20 for the service. The percentage of respondents who would pay nothing (US \$0) decreased as the percent of chance of improvement increased. For a 50% improvement, 10.9% (initial) and 15% (follow-up) of the respondents indicated that they would pay nothing. For a 100% improvement, the percentages decreased to 5.7% (initial) and 6.7% (follow-up).

The second objective of this study was to determine the relationship between WTP and the importance of resolving menopausal symptoms, satisfaction with physician services, patients' perceptions of pharmacists' abilities, and income. Four separate logistic regression analyses were run on the various WTP scenarios (see Tables 4-7). Table 8 provides a summary of these results.

Although all 4 of the overall models were statistically significant ( $P < .05$ ), the relationships between the independent and dependent variables differed. The variable, "importance of resolving symptoms," was related only to WTP in the "100% improvement initial" scenario (see Table 6). In this scenario, as patients' levels of importance for resolving menopausal symptoms increased, so did their WTP. The second variable, "satisfaction with physician services," was related to WTP for both the initial scenarios (see Tables 4 and 6). As

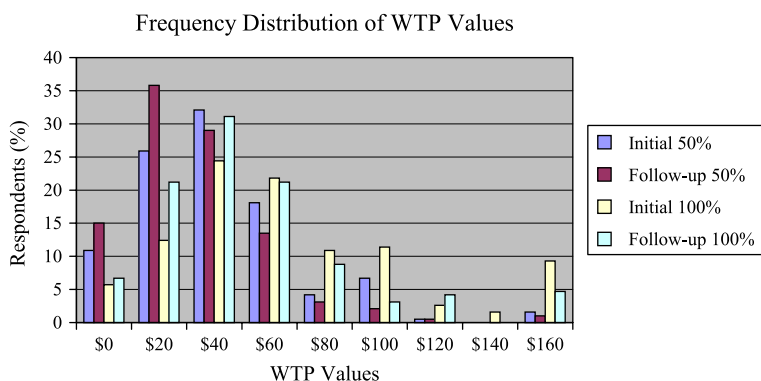


Figure 1. Frequency distribution of WTP values across the 4 scenarios.

Table 4

Logistic regression analysis of factors influencing patient WTP for an initial half-hour consultation that would result in a 50% improvement in symptoms

Dependent variable = WTP					
Independent variables	$\beta$ (SE)	Odds ratio	95% C.I.	Wald F	<i>P</i> -value
Importance of resolving symptoms	.006 (.020)	1.006	0.966-1.048	0.0822	.7744
Satisfaction with physician services	-.449 (.140)	0.638	0.486-0.840	10.3181	.0013*
Patients' perceptions of pharmacists' abilities	.917 (.233)	2.501	1.585-3.946	15.5080	<.0001*
Income	.272 (.088)	1.313	1.106-1.559	9.6348	.0019*

Model Chi-square 38.13;  $P < .0001$ ;  $df = 4,171$ .

\* Indicates significance at  $P < .05$ .

satisfaction with physician services decreased, WTP for pharmacy services increased. This variable was not related to WTP in the follow-up scenarios.

Both patients' perceptions of pharmacists' abilities and income were positively and significantly related to WTP across all 4 scenarios. The 100% improvement initial scenario (see Table 6) was the only model where all 4 variables were significantly related to WTP.

## 4. Discussion

### 4.1. WTP for pharmacist-provided menopause and HRT consultations

The present study showed that at least 85% of the respondents were willing to pay a minimum of US \$20 for one half-hour of pharmacist-provided menopause and HRT consultations. The mean values for one half-hour consultation ranged from US \$34 to US \$66, while the median values ranged from US \$20 to US \$40. Although some pharmacists have included

Table 5

Logistic regression analysis of factors influencing patient WTP for a follow-up consultation that would result in a 50% improvement in symptoms

Dependent variable = WTP					
Independent variables	$\beta$ (SE)	Odds ratio	95% C.I.	Wald F	<i>P</i> -value
Importance of resolving symptoms	.011 (.020)	1.011	0.970-1.053	.2701	.6033
Satisfaction with physician services	-.161 (.137)	0.851	0.651-0.114	1.3804	.2400
Patients' perceptions of pharmacists' abilities	.606 (.228)	1.833	1.172-2.867	7.0519	.0079*
Income	.199 (.087)	1.220	1.029-1.447	5.222	.0223*

Model Chi-square 14.95;  $P = .0048$ ;  $df = 4,171$ .

\* Indicates significance at  $P < .05$ .

Table 6

Logistic regression analysis of factors influencing patient WTP for an initial half-hour consultation that would result in a 100% improvement in symptoms

Dependent variable = WTP					
Independent variables	$\beta$ (SE)	Odds ratio	95% C.I.	Wald F	P-value
Importance of resolving symptoms	.0418 (.021)	1.043	1.001-1.086	4.1284	.0042*
Satisfaction with physician services	-.487 (.138)	.615	.470-.805	12.5238	.0004*
Patients' perceptions of pharmacists' abilities	.763 (.224)	2.145	1.382-3.328	11.5820	<.0007*
Income	.213 (.085)	1.238	1.048-1.462	6.2980	.0121*

Model Chi-square 34.68;  $P < .0001$ ;  $df = 4,171$ .

\* Indicates significance at  $P < .05$ .

fee-for-service consultations in their practices, pharmacists have traditionally provided these services free of charge.<sup>35</sup> Pharmacists who have been reluctant to charge for their services may consider these results if implementing a menopause and HRT consultation service at their pharmacies.

The following trends emerged from the 4 WTP scenarios: respondents were willing to pay more for an initial visit than for a follow-up visit and they were willing to pay more for a 100% improvement versus a 50% improvement. Increased WTP for increased benefit tests the scope effect and lends support to the construct validity of WTP in this study. When considering that the initial visit may be more in-depth, it is logical that respondents may perceive a follow-up visit to be less valuable. This perception could result in fewer patients returning for a follow-up visit and suggests that pharmacists may need to use strategies to help facilitate a follow-up visit. Pharmacists could send out letters thanking patients for their initial visit and include satisfaction questionnaires to solicit feedback on strengths and weaknesses in their consultation services. After the initial consultation, pharmacists may consider following-up on a weekly or

Table 7

Logistic regression analysis of factors influencing patient WTP for a follow-up consultation that would result in a 100% improvement in symptoms

Dependent variable = WTP					
Independent variables	$\beta$ (SE)	Odds ratio	95% C.I.	Wald F	P-value
Importance of resolving symptoms	.033 (.021)	1.033	.992-1.076	.2701	.1148
Satisfaction with physician services	-.259 (.136)	.772	.592-1.007	1.3804	.0563
Patients' perceptions of pharmacists' abilities	.535 (.223)	1.707	1.103-2.644	7.0519	.0165*
Income	.177 (.085)	1.193	1.009-1.410	5.222	.0387*

Model Chi-square 16.76;  $P = .0022$ ;  $df = 4,171$ .

\* Indicates significance at  $P < .05$ .

Table 8  
Comparison of WTP scenarios and relationship to independent variables

WTP scenarios	50% Improvement initial	50% Improvement follow-up	100% Improvement initial	100% Improvement follow-up
Independent variables				
Importance of resolving symptoms	ns	ns	+	ns
Satisfaction with physician services	–	ns	–	ns
Patients' perceptions of pharmacists' abilities	+	+	+	+
Income	+	+	+	+

ns = Not significant.

– = Negatively and significantly correlated ( $P < .05$ ).

+ = Positively and significantly correlated ( $P < .05$ ).

monthly basis to inquire about patient progress or questions, as well as additional services that could be provided on a follow-up visit. A survey and/or personal call may show patients that pharmacists are committed to providing patient satisfaction and optimizing outcomes. These services may help to increase patients' perceptions of the service, which may in turn increase their perceptions of the value of a follow-up consultation.

#### 4.2. Relationship between WTP and independent variables

The relationship between the independent and dependent variables served 2 purposes: to examine variables that pharmacist may use to target potential patients and to test the construct validity of the WTP values. Several trends emerged from the regression models assessing the relationships between WTP and the independent variables (ie, importance of resolving menopausal symptoms, satisfaction with physician services, patients' perceptions of pharmacists' abilities, and income).

##### 4.2.1. Importance of resolving menopausal symptoms

Menopausal symptoms were measured both in frequency and severity and before and while taking HRT. Overall, the respondents rated their symptom severity as “moderately severe” before taking HRT and as “slightly severe” while taking HRT; thus it appears that HRT had some impact on resolving their symptoms and may have contributed to their low importance rating. Although it is logical to assume that people who have a greater need would be willing to pay more, the regression results revealed that across all 4 scenarios, the relationship between importance of resolving symptoms and WTP was significantly related in only 1 scenario (ie, 100% improvement initial). The results could be explained by the fact that study participants did not seem to have a need for symptom resolution, as they indicated the importance of this to be minimal (ie, “not important” to “slightly important”). The lack of

correlation between WTP and disease severity is of concern in establishing construct validity, but it is possible that in addition to their low perceived need, the respondents were still interested in pharmacist services for something other than symptom resolution. Nevertheless, one would expect that pharmacists would still need to target patients who want to resolve their symptoms the most, since they are probably the ones suffering the most.

#### 4.2.2. *Satisfaction with physician services*

Patients have expressed a need for more information on menopause and HRT than what is currently being provided by their physicians. In the current health care environment, many physicians face time constraints and may not be able to provide extensive information and education to their patients.<sup>20</sup> Thus, patients may be willing to consider other sources of help and support. This study showed that for the initial consultation scenarios, patients who are less satisfied with physician services were willing to pay more for pharmacist consultations than were those more satisfied with physician services. Pharmacists should make patients aware of their consultation services so that if their physicians are not meeting their needs, they may turn to their pharmacist for help. In addition to increasing patients' awareness regarding consultation services, pharmacists could also inform physician practices. With the goal of optimizing outcomes, pharmacists can work together with physicians and their staff to help solve the patients' problems by conducting background work and research, then relaying the resultant information and recommendations to physicians. This approach would foster an environment of interdisciplinary care and support positive patient-physician relationships.

#### 4.2.3. *Perceptions of pharmacists' abilities*

Similar to other studies, the current study found that patients' perceptions regarding pharmacists' abilities were positive.<sup>36,37</sup> This study also showed that positive perceptions were significantly associated with increasing WTP values. Cerulli<sup>37</sup> found that although patients have positive perceptions of pharmacists, they generally have no knowledge of pharmacists' roles and responsibilities. This suggests that pharmacists may want to increase awareness of their consultation capabilities to the public by demonstrating their services and/or sending out informational brochures. If patients perceive value in this type of service they may be willing to pay for counseling sessions with a pharmacist to discuss their menopausal issues.

#### 4.2.4. *Income*

As in other WTP studies, income was significantly and positively related to WTP.<sup>30,32,38,39</sup> This relationship is in the expected direction and is one of the primary construct validity checks for WTP methodology. It also indicates that pharmacists may consider performing a demographic analysis of their area market to persons who may be more able to pay for the services.

### *4.3. Limitations*

There are several limitations to this study. The pharmacists and patients who participated in the study were chosen by convenience sampling. As such, it is possible that a “warm-glow” effect resulted in respondents’ overstating WTP values. Also, most of the pharmacists who participated in this study worked in independent community practice, and therefore, the results may not be representative of all pharmacists or of women suffering from menopause. Although this was a convenience sample, the average age of study respondents (53 years) was similar to the national average of those entering menopause (51 years).<sup>40</sup>

Other study limitations involved the methodology used to assess WTP. According to the National Oceanic and Atmospheric Administration,<sup>41</sup> it is recommended that WTP values be elicited using face-to-face interviews and dichotomous choice as a bidding vehicle. This study used self-administered surveys and the payment card method because of limited resources. Face-to-face interviews would require extensive human resources, and dichotomous choice questions require very large sample sizes. Although the study used different methods than those recommended by the National Oceanic and Atmospheric Administration, the validity of WTP could be assessed by examining the relationships between the dependent and independent variables. While income and patients’ perceptions regarding pharmacists’ abilities were significantly related to WTP and in the expected direction in each of the 4 models, symptom resolution (or disease severity) was related to WTP in only 1 model, and satisfaction with physician services was related in only 2 models. As discussed above, the lack of correlation between disease severity and WTP may be because of the overall low level of perceived importance expressed by the respondents or possibly because of a “warm glow” effect.

Another limitation of the study was the issue of hypothetical bias. A scenario of an HRT consultation was given under hypothetical circumstances, and the respondents were asked how much they would pay for such a service. Studies have shown that the amount of money respondents say they will pay for a service may not be accurate, and is often overestimated.<sup>42</sup> Patients may not be willing to pay as much for the pharmacist-provided menopause and HRT consultations as they claimed at the time of the survey. As detailed above, WTP is not without its disadvantages, but it is considered the best methodology available to monetize intangible benefits that may result from programs such as pharmaceutical care services.

### *4.4. Conclusions*

Despite the limitations cited in this study, we feel confident that it provides important information regarding patients’ WTP for pharmacist-provided menopause and HRT consultations. This study is believed to be the first to

examine WTP for this type of service. At least 85% of the respondents were willing to pay a minimum of US \$20 for a half-hour consultation. WTP increased with increasing perceptions of pharmacists' abilities to provide the service and with patient income. If pharmacists can effectively educate the public about their capabilities and expertise, they may discover that they have a new niche opportunity in providing menopausal and HRT counseling.

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## References

1. Sulak PJ. The perimenopause: a critical time in a woman's life. *Int J Fertil Menopausal Stud.* 1996;41:85–89.
2. Shepherd JE. Effects of estrogen on cognition, mood, and degenerative brain diseases. *J Am Pharm Assoc.* 2001;41:221–228.
3. Archer DF, Gass MS, Gelfand MM, et al. Clinical challenges of perimenopause: consensus opinion of the North American Menopause Society. *Menopause.* 2000;7:5–12.
4. Whitehead MI. General principles of administration of hormone replacement therapy: indications and contraindications, routes of administration, treatment schedules. In: Fraser IS, Jansen RPS, Lobo RA, et al. eds. *Estrogens and Progestogens in Clinical Practice.* 1st ed. Edinburgh: Harcourt Publishers Ltd; 2000:667–686.
5. Clinical Synthesis Panel on HRT. Clinical synthesis conference: hormone replacement therapy. *Lancet.* 1999;354:152–155.
6. Gibaldi M. Prevention and treatment of osteoporosis: does the future belong to hormone replacement therapy? *J Clin Pharmacol.* 1997;37:1087–1099.
7. Writing Group for the Women's Health Initiative Investigators. Risks and benefits of estrogen plus progestin in healthy postmenopausal women: principal results from the Women's Health Initiative randomized controlled trial. *JAMA.* 2002;288:321–333.
8. Grady D, Rubin SM, Petitti DB, et al. Hormone therapy to prevent disease and prolong life in postmenopausal women. *Ann Int Med.* 1992;117:1016–1037.
9. Chow MS. Benefit/risk of estrogen therapy in cardiovascular disease: current knowledge and future challenges. *J Clin Pharmacol.* 1995;35(suppl):11S–17S.
10. Stumpf PG, Trolice MP. Compliance problems with hormone replacement therapy. *Obstet Gynecol Clin North Am.* 1994;21:219–226.
11. Ryan PJ, Harrison R, Blake GM, Fogelman I. Compliance with hormone replacement therapy (HRT) after screening for postmenopausal osteoporosis. *Br J Obstet Gynaecol.* 1992;99:325–328.
12. Torgerson DJ, Donaldson C, Russell IT, et al. Hormone replacement therapy: compliance and cost after screening for osteoporosis. *Eur J Obstet Gynecol Reprod Biol.* 1995;59:57–60.
13. Cano A. Compliance to hormone replacement therapy in menopausal women controlled in a third level academic center. *Maturitas.* 1995;20:91–99.
14. Schiff I, Rebar RW, Cramer JA, et al. Achieving long-term continuance of menopausal ERT/HRT: consensus opinion of the North American Menopause Society. *Menopause.* 1995;5:69–76.
15. Ravnkar VA. Compliance with hormone therapy. *Am J Obstet Gynecol.* 1987;156:1332–1334.

16. Ferguson KJ, Hoegh C, Johnson S. Estrogen replacement therapy: a survey of women's knowledge and attitudes. *Arch Int Med.* 1989;149:133–136.
17. Nachtigall LE. Enhancing patient compliance with hormonal replacement therapy at menopause. *Obstet Gynecol.* 1990;75:S77–S80.
18. Conboy L, Domar A, O'Connell E. Women at mid-life: symptoms, attitudes, and choices, and internet based survey. *Maturitas.* 2001;38:129–136.
19. Kaufert P, Boggs P, Etinger B, et al. Women and menopause: beliefs, attitudes and behaviors. The North American Menopause Society 1997 menopause survey. *Menopause.* 1998;5(4):197–202.
20. Connelly MT, Ferrari N, Hagen N, et al. Patient-identified needs for hormone replacement therapy counseling: a qualitative study. *Ann Intern Med.* 1999;131:265–268.
21. American Pharmaceutical Association. APhA national survey: willingness of consumers to pay for pharmacists' clinical services. *Am Pharm.* 1983;NS23:314–327.
22. Larson R. Patients' willingness to pay for pharmaceutical care. *J Am Pharm Assoc.* 2000;40:618–624.
23. Suh DC. Consumers' willingness to pay for pharmacy services that reduce risk of medication-related problems. *J Am Pharm Assoc.* 2000;40:818–826.
24. Gore PR, Madhavan S. Consumers' preference and willingness to pay for pharmacist counseling of non-prescription medicines. *J Clin Pharm Ther.* 1994;19:17–25.
25. Reutzel TJ, Furmaga E. Willingness to pay for pharmacist services in a veterans administration hospital. *J Res Pharm Econ.* 1993;5:89–114.
26. Einarson TR, Bootman JL, Larson LN, et al. Blood level testing in a community pharmacy: consumer demand and financial feasibility. *Am Pharm.* 1988;NS28:76–79.
27. Barner JC. Patient willingness to pay for diabetes disease state management programs. *J Manag Pharm Care.* 2001;1:85–96.
28. Barner JC, Mason HL, Murray MD. Assessment of asthma patients' willingness to pay for and willingness to give time to an asthma self-management program. *Clin Ther.* 1999;21:878–894.
29. Blumenschein K, Johannesson M. Use of contingent valuation to place a monetary value on pharmacy services: an overview and review of the literature. *Clin Ther.* 1999;21:1402–1417.
30. Johannesson M, Jonsson B. Willingness to pay for antihypertensive therapy—results of a Swedish pilot study. *J Health Econ.* 1991;10:461–474.
31. Johannesson M, Johansson PO. Willingness to pay for antihypertensive therapy—further results. *J Health Econ.* 1993;12:95–108.
32. Ramsey S, Sullivan S, Psaty B, Patrick D. Willingness to pay for antihypertensive care: evidence from a staff-model HMO. *Soc Sci Med.* 1997;44:1911–1917.
33. Ryan M, Ratcliffe J, Tucker J. Using willingness to pay to value alternative models of antenatal care. *Soc Sci Med.* 1997;44:371–380.
34. Nunnally JC. *Psychometric Theory.* New York, NY: McGraw-Hill Book Company; 1978.
35. Kuntz R, Rimmert R. A new trend in pharmacy practice: private consultations. *Int J Pharm Compound.* 2000;5:170–172.
36. Nau DP, Reid LD, Lipowski EE, et al. Patients' perceptions of the benefits of pharmaceutical care. *J Am Pharm Assoc.* 2000;40:36–40.
37. Cerulli J. Patients' perceptions of independent community pharmacists. *J Am Pharm Assoc.* 2002;42:279–282.
38. Johannesson M, Johansson PO, Kristrom B, et al. Willingness to pay for lipid lowering: a health production function approach. *Appl Econ.* 1993;25:1023–1031.
39. Neumann PJ, Johannesson M. The willingness to pay for in vitro fertilization: a pilot study using contingent valuation. *Med Care.* 1994;32:686–699.
40. North American Menopause Society. The Menopause Core Curriculum Study Guide. October 2002, Section A. Available at: <http://www.menopause.org/NR/rdonlyres/9E4D788A-5DD6-4FDB-8D02-2293F7760D7C/0/sga.pdf>. Accessed on November 9, 2004.

41. U.S. National Oceanic and Atmospheric Administration. Report of the NOAA panel on contingent valuation. *Fed Regist.* 1993;58:4602–4614.
42. Blumenschein K, Johannesson M, Blomquist GC, et al. Experimental results on expressed certainty and hypothetical bias in contingent valuation. *South Econ J.* 1998;65:169–177.

## Appendix A: Survey of patient interest in pharmacist provided menopause and hormone replacement therapy consultations

### Section A. Patient experiences with menopause and hormone replacement therapy

This section of the survey is designed to collect information regarding your experiences with menopause and hormone replacement therapy. Please answer the following questions by circling the number that corresponds with your response or by filling in the blank provided.

1. Are you currently taking hormone replacement therapy (HRT) prescribed by a physician?
  - Yes. If yes, please proceed to Question 2.
  - No. If no, please return the questionnaire to the pharmacist. Thank you for your time and willingness to participate in this study.
2. Please list the frequency and severity of the symptoms that you experienced ***before taking HRT***, by circling the number that corresponds to your response. Please make sure to answer under both categories of frequency and severity. If you *did not experience a symptom*, please circle NA for not applicable under severity.

	<b>FREQUENCY</b> How often did you have symptoms <b>before taking HRT</b> ?					<b>SEVERITY</b> How severe were your symptoms <b>before taking HRT</b> ?					
	Never	Sometimes	Half of the time	Often	Always	Not severe	Slightly	Moderately	Very	Extremely	
a) Hot flashes	1	2	3	4	5	1	2	3	4	5	NA
b) Irregular periods	1	2	3	4	5	1	2	3	4	5	NA
c) Mood swings	1	2	3	4	5	1	2	3	4	5	NA
d) Night sweats	1	2	3	4	5	1	2	3	4	5	NA
e) Vaginal dryness	1	2	3	4	5	1	2	3	4	5	NA
f) Loss of libido (sex drive)	1	2	3	4	5	1	2	3	4	5	NA
g) Other*	1	2	3	4	5	1	2	3	4	5	NA

\*Please specify if you have other symptoms that we did not include.

3. Please list the **frequency** and **severity** of the symptoms that you experience currently ***while taking HRT***, by circling the number that

corresponds to your response. Please make sure to answer under both categories of frequency and severity. If you are not experiencing a symptom, please circle NA for not applicable under severity.

	FREQUENCY How often do you have symptoms while taking HRT?					SEVERITY How severe are your symptoms while taking HRT?					NA
	Never	Sometimes	Half of the time	Often	Always	Not severe	Slightly	Moderately	Very	Extremely	
a) Hot flashes	1	2	3	4	5	1	2	3	4	5	NA
b) Irregular periods	1	2	3	4	5	1	2	3	4	5	NA
c) Mood swings	1	2	3	4	5	1	2	3	4	5	NA
d) Night sweats	1	2	3	4	5	1	2	3	4	5	NA
e) Vaginal dryness	1	2	3	4	5	1	2	3	4	5	NA
f) Loss of libido (sex drive)	1	2	3	4	5	1	2	3	4	5	NA
g) Other*	1	2	3	4	5	1	2	3	4	5	NA

\*Please specify if you have other symptoms that we did not include.

4. If you are currently experiencing symptoms, please indicate the **importance** of getting each of them under control by circling the number that corresponds with your response. If you are not experiencing a symptom, please circle NA for not applicable.

	Not important	Slightly	Moderately	Very	Extremely	NA
a) Hot flashes	1	2	3	4	5	NA
b) Irregular periods	1	2	3	4	5	NA
c) Mood swings	1	2	3	4	5	NA
d) Night sweats	1	2	3	4	5	NA
e) Vaginal dryness	1	2	3	4	5	NA
f) Loss of libido (sex drive)	1	2	3	4	5	NA
g) Other*	1	2	3	4	5	NA

\*Please specify if you have other symptoms that we did not include.

5. Which of the products listed below does your physician currently prescribe for you to treat menopausal-related issues? (Ask the pharmacist if you need help). **Please check all that apply.**

- |   |   |
|---|---|
| <input type="checkbox"/> Birth control pills  | <input type="checkbox"/> Prempro                  |
| <input type="checkbox"/> Climara patch        | <input type="checkbox"/> Provera                  |
| <input type="checkbox"/> Estrace              | <input type="checkbox"/> Testosterone             |
| <input type="checkbox"/> Methyltestosterone   | <input type="checkbox"/> Tri-est or bi-est        |
| <input type="checkbox"/> Natural progesterone | <input type="checkbox"/> Other, please specify —— |
| <input type="checkbox"/> Premarin             | <input type="checkbox"/> Not sure                 |
| <input type="checkbox"/> Premphase            |   |

6. How satisfied are you with your current hormone replacement therapy regimen?

- Not satisfied
- Slightly satisfied
- Moderately satisfied
- Very satisfied
- Extremely satisfied

### **Section B. Information sources and satisfaction with services**

This section of the survey is designed to collect information regarding your sources of information on menopause and HRT, as well as to measure how satisfied you are with services you receive from your physician.

1. Listed below are several sources you may have used to obtain information regarding menopause and HRT. For each of the sources, please rate your frequency of use by circling the number that corresponds with your response.

	Never	Sometimes	Half of the time	Often	Always
a) Primary care physician	1	2	3	4	5
b) OB/GYN (obstetrician/gynecologist)	1	2	3	4	5
c) Nurse	1	2	3	4	5
d) Pharmacist	1	2	3	4	5
e) Dietitian or nutritionist	1	2	3	4	5
f) Internet	1	2	3	4	5
g) Magazines or books	1	2	3	4	5
h) Family and friends	1	2	3	4	5
i) Television	1	2	3	4	5
j) Seminars	1	2	3	4	5
k) Other, please specify	1	2	3	4	5

2. Please rate your level of agreement with the statements below regarding satisfaction with services provided by your physician on menopause and HRT related issues. Please circle the number that corresponds with your response.

	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
a) I am satisfied with the information given to me by my physician about menopause and HRT.	1	2	3	4	5
b) I am satisfied with the amount of time that I am able to spend with my physician discussing menopause and HRT.	1	2	3	4	5
c) I am satisfied with my physician's answers to my questions regarding menopause and HRT.	1	2	3	4	5
d) I am satisfied with my physician's follow-up on my progress with my current HRT regimen.	1	2	3	4	5
e) I am satisfied with my physician's willingness to help me solve my menopausal and HRT problems.	1	2	3	4	5
f) I am satisfied with my physician's compassion regarding my concerns or problems with menopause and HRT.	1	2	3	4	5
g) I am satisfied with my physician's ability to help me feel better.	1	2	3	4	5

3. Please rate your level of agreement with the following statements regarding pharmacists and menopause and HRT consultations by circling the number that corresponds with your response.

	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
a) Pharmacists can take adequate time to listen to your problems about menopause and HRT.	1	2	3	4	5
b) Pharmacists are qualified to help you solve your menopause and HRT-related problems.	1	2	3	4	5
c) Pharmacists can communicate with your physician to help solve your problems.	1	2	3	4	5
d) Pharmacists can make recommendations on nutritional supplements or over-the-counter products.	1	2	3	4	5
e) Pharmacists can offer alternatives to your current HRT therapy.	1	2	3	4	5
f) Pharmacists can do research for you regarding your specific situation.	1	2	3	4	5

### Section C. Pharmacist provided menopause and HRT consultations

This section of the survey is designed to collect information regarding your interest in pharmacist-provided menopause and HRT consultations. Please read the following scenario carefully.

**Many women have the following menopause and HRT related issues in which they might need help:**

- Menopausal *symptoms can be so severe* that women have a hard time performing daily routines.
- HRT *side effects can be so severe* that women have a hard time performing daily routines.
- Some women *cannot take HRT* but need treatment for their menopausal symptoms.
- Some women want a more *natural alternative* to their current HRT regimen.
- Some women have *tried various HRT regimens* and still do not feel good.
- Some women feel that they do *not get appropriate attention* from health care providers regarding their menopausal issues.

**Pharmacists can help women with their menopause and HRT related issues.**

- A typical consultation from a pharmacist may involve the patient filling out an evaluation form that will ask about medical history, current medications, current symptoms, problems, and questions regarding menopause and HRT.

- The pharmacist will schedule time for the patient to explain all her symptoms, concerns, and goals for therapy.
- The pharmacist will explain possible causes of symptoms, and different approaches to take to treat them.
- The pharmacist will answer questions about menopause or HRT.
- The pharmacist can offer referrals to hormone testing labs, physicians who specialize in HRT, nutritionists, and other health care practitioners that may be needed to help solve a problem.
- The pharmacist can consult with the woman’s physician about recommendations to individualize treatment to meet her specific needs.

**Appropriate management of these issues by a pharmacist can result in fewer episodes of menopause-related symptoms and an improved quality of life for women as they go through menopause.**

1. What would be the likelihood that you would?

	Not likely	Somewhat likely	Not sure	Very likely	Extremely likely
a) Seek help from a pharmacist for menopause and HRT-related problems?	1	2	3	4	5
b) Ask the pharmacist to contact your physician for recommendations.	1	2	3	4	5
c) Recommend the pharmacy where you receive consultations to your friends.	1	2	3	4	5
d) Ask the pharmacist to help you with other health problems you may have.	1	2	3	4	5

2. Have you ever received menopause or HRT consultation from a pharmacist?

- No, please go to the next page.  
 Yes ———▶ If yes, did you pay for the service?  No  Yes

For the next two questions, consider the description of services (on p. 5) that a pharmacist could provide. Also assume that your insurance will not cover any costs. You would be responsible for the entire cost of the service.

3. *Assume* that a pharmacist consultation would result in a **50% improvement** of your symptoms. Please answer the next two questions with that assumption in mind.

a. How much would you be willing to pay for an **initial 1/2-hour consultation** with a pharmacist regarding your questions and concerns

with menopause and HRT? Please circle the maximum amount that you would be willing to pay.

\$0	\$60	\$120
\$20	\$80	\$140
\$40	\$100	\$160

- b. How much would you be willing to pay for a **follow-up 1/2-hour consultation** to discuss your progress and answer your questions after hormone regimen changes or dosage adjustments have been made? Please circle the maximum amount that you would be willing to pay.

\$0	\$60	\$120
\$20	\$80	\$140
\$40	\$100	\$160

4. Assume that a pharmacist consultation would result in a **100% improvement** of your symptoms. Please answer the next two questions with that assumption in mind.

- a. How much would you be willing to pay for an **initial 1/2-hour consultation** with a pharmacist regarding your questions and concerns with menopause and HRT? Please circle the maximum amount that you would be willing to pay.

\$0	\$60	\$120
\$20	\$80	\$140
\$40	\$100	\$160

- b. How much would you be willing to pay for a **follow-up 1/2-hour consultation** to discuss your progress and answer your questions after hormone regimen changes or dosage adjustments have been made? Please circle the maximum amount that you would be willing to pay.

\$0	\$60	\$120
\$20	\$80	\$140
\$40	\$100	\$160

#### Section D. Demographics

Please tell us about yourself. Please answer the following questions by placing an “X” in the box or by filling in the blank provided.

1. What year were you born? 19\_\_\_\_\_
2. How would you describe your racial background?

- |   |  |
|---|--|
| <input type="checkbox"/> African American<br><input type="checkbox"/> American Indian or<br>Alaskan Native<br><input type="checkbox"/> Asian American<br><input type="checkbox"/> Caucasian | <input type="checkbox"/> Mexican American<br><input type="checkbox"/> Puerto Rican or other<br>Hispanic origin<br><input type="checkbox"/> Other, describe _____ |
|---|--|

3. From the following, please check the category that best describes the total income of your household last year before taxes. Total income includes your earnings and the earnings of all other members of your household.

- |   |   |
|---|---|
| <input type="checkbox"/> Less than \$US25,000<br><input type="checkbox"/> \$US25,001 to \$US50,000<br><input type="checkbox"/> \$US50,001 to \$US75,000 | <input type="checkbox"/> \$US75,001 to \$US100,000<br><input type="checkbox"/> \$US100,001 to \$US125,000<br><input type="checkbox"/> \$US125,001 or higher |
|---|---|

4. What was the last grade of school that you completed?

- |   |   |
|---|---|
| <input type="checkbox"/> Grade school or less (0-8)<br><input type="checkbox"/> Some high school (9-11)<br><input type="checkbox"/> High school<br>graduate or GED (12) | <input type="checkbox"/> Some college or junior college<br><input type="checkbox"/> Bachelor's degree (4 or 5 year degree)<br><input type="checkbox"/> Graduate degree (Masters, PhD) |
|---|---|

5. Hysterectomies can sometimes impact HRT needs. Please indicate whether or not you have had a hysterectomy by checking the box that corresponds with your response.

- No, I have not had a hysterectomy (go to question 6)  
 Yes, I have had a hysterectomy. Please indicate which type below.  
 Full hysterectomy (uterus and ovaries removed)  
 Partial hysterectomy (no uterus, but have one or more ovaries)

6. How often do you visit this pharmacy to have a prescription filled or refilled?

- Never  
 Every three months  
 Once a month  
 Twice a month  
 Weekly

Thank you for taking the time to participate in this survey. Your information will help us learn more about people who use HRT for menopause-related issues and how to provide them with the services they need.

Do you have any comments or suggestions?

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Please fold the survey, place it in the envelope provided, seal the envelope, and return it to your pharmacist.