Executive Summary

2004-2005 NCPA Research Award

Consumer Willingness to Pay for Pharmacist Care Services in Community Pharmacies

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Preamble

In August 2004, the NCPA Foundation requested research proposals that would address consumer willingness to pay for pharmacist care services; specifically, the Foundation called for proposals that would "measure and quantify the willingness consumers have to pay for community pharmacy-based patient care services".

Our proposal outlined four specific aims to meet this goal:

1. Use our existing pharmacist care service willingness to pay database to identify characteristics of subjects who are willing to purchase pharmacist care services, and to estimate demand curves for pharmacist care services (i.e. quantify the willingness consumers have to pay for community pharmacy based patient care services).

2. Use our existing database to analyze consumers' motivation for <u>not</u> purchasing pharmacist care services and identify any potential characteristics of the services that are of greater (or lesser) value to consumers.

3. Conduct focus groups with consumers to elucidate pharmacist care service attributes that are most highly valued by consumers.

4. Conduct a comprehensive literature review on consumer willingness to pay for pharmacist care services and update the 1999 publication on this topic that we authored.

We have completed our research and have submitted four separate manuscripts that address each of the specific aims outlined above. The following provides a brief overview of our findings.

Understanding consumer willingness to pay for pharmacist provided services is crucial for the profession as it continues to evolve in the changing health care system. As the profession transitions from the historical product orientation toward a patient-care focus, one would think that information on consumer value for pharmacist provided services would be vital. A number of studies have documented the value of pharmacy services to health care systems or third-party payers; however, the lack of published information on the value that ***consumers*** place on pharmacy services is astounding. In the manuscript entitled "Consumer Willingness to Pay for Pharmacy Services: An Updated Review of the Literature", we provide a review of the few studies published since 1999 that have specifically addressed this issue. This manuscript fulfills specific aim number four listed above. Table 1 provides a brief overview of the papers included in our review article.

Since 1999, we have conducted a series of studies designed to explore consumer willingness to pay for community pharmacy-based patient care services; specifically, pharmacist provided disease management services for asthma, dyslipidemia and diabetes. To address the first specific aim, we provide a complete report of our findings from these three studies in the manuscript entitled "Willingness to Pay for Pharmacist Care Services: A Summary of Evidence Provided by Over 550 Consumers". Our data suggest that on average, only one in five consumers who are appropriate potential candidates for disease management will purchase pharmacist provided disease management services in community pharmacies when offered the opportunity to do so. Unfortunately, we also found that on average the price that consumers are willing to pay for the disease management service is well below the cost of providing the service. Table 2 provides a summary of the mean willingness to pay for each of the three disease management services; Figure 1 provides the demand curves for each service resulting from our data.

One recommendation for conducting willingness to pay studies is to collect information from the survey respondent that provides the 'motivation', or rationale, for their response to the willingness to pay question (i.e why they decided to purchase, or not purchase, the service offered to them). We used the 'motivation' responses to clarify the lack of consumer interest in purchasing pharmacist provided disease management services. The results were not completely unexpected, however, they help frame the issue of why consumers do not 'demand' (i.e. are not willing to pay for) pharmacist provided disease management services. A full description of the

'motivation response' analysis is found in the manuscript entitled "It's Not Just the Money: Why Consumers Do Not Purchase Pharmacist Provided Services", which addresses the second specific aim listed above. We found that over 30% of consumers declined to purchase the pharmacist provided disease management service because they felt that they were already obtaining most, or all, of the service via another health care provider (i.e. from a physician, a nurse, etc). Over 20% of consumers believed that they did not 'need' the service being offered. Figure 2 provides a summary of the 'motivation responses' from our studies.

In order to complete our understanding of consumer willingness to pay for pharmacist care services, we proceeded to conduct in-depth discussions with consumers to obtain their opinions, attitudes and beliefs regarding pharmacist provided services in community pharmacies. Using a series of three focus groups, we met with 35 consumers from both urban and rural areas in central Kentucky. This qualitative analysis fulfills our third specific aim, and a complete report of the focus group findings is provided in the manuscript entitled "Consumer Willingness to Pay for Pharmacist Provided Services: Evidence from Focus Groups". To summarize, the focus groups demonstrated that the lay-public is unaware of pharmacists' knowledge, skills and abilities in areas outside of 'drugs'. Consumers have minimal interest in purchasing 'health promotion', 'wellness', or 'disease management' services in community pharmacies and are disinclined to make appointments with community pharmacists for any reason. Physicians are the preferred health care provider for responding to consumer's disease related questions and monitoring their conditions. However, the focus groups also verified that the lay-public views the pharmacist as the '***medication*** expert' who has specialized drug knowledge beyond what is found in any other health care provider, and the pharmacist is the health care professional they turn to most often for assistance with over-the-counter medication purchases.

Taken together, we believe that the findings from our research provide a clear direction for the profession as it embarks on wide scale medication therapy management. Consumers do see the pharmacist as a medication expert; not necessarily as the health care provider that they want to have manage their overall diseases and health conditions in general, but certainly, the health care provider they want to look to for advice and guidance regarding their medications. Within the scope of medication therapy management, the aspect of medication ***monitoring*** will undoubtedly require a massive educational campaign from the profession. The disconnect

between what the public views as the pharmacist's domain within the health care system must be clarified such that consumers ***do*** view pharmacists as appropriate health care professionals for monitoring responses to medications. Without a massive, well constructed, nationally coordinated marketing effort that promotes the medication monitoring capabilities of the profession, pharmacy is apt to squander its last best hope for entrenching its role as a '***care provider'*** in the evolving health care system.

Table 1: Published Studies Addressing Consumer Willingness to Pay for Pharmacist Care Services (1999 – 2005)

Author(s)	Source	Survey Location	Service Valued	Method of Survey Adminis-tration	Number of Respon-dents	Proportion of Respondents who were willing to pay more than $0	**Average willing-ness to pay**	**Conclusion from Study Author(s)**
Larson RA	*J Am Pharm Assoc* 2000; 40:618-24	National	"Pharma-ceutical Care"	Mailed Survey	175	55% were willing to pay for a "one time comprehensive eval-uation of medication use"; 56% would pay for a one time eval-uation of medication use plus "a year's worth of follow-up"	$12.91 for a "one time comprehensive evaluation of medication use"; $27.87 for a one time evaluation of medication use plus "a year's worth of follow-up"	"A majority of patients are willing to pay for pharmaceutical care services"
Suh, DC	*J Am Pharm Assoc* 2000; 40:818-27	Outpatient clinic or physician offices in New Jersey	"Pharmacy services directed toward reducing the risk of medication-related problems"	Self-admin-istered question-naire	316	60% were willing to pay for a service that would provide a risk reduction from 40% to 20%; 35.7% were willing to pay for a service that would provide a risk reduction of 10% to 5%	$5.57 for a 6.5 minute counseling session	"Respondents were willing to pay for pharmacists' services that reduce the risk of mediation related problems"
Daftary MN, Lee E, Dutta AP, et al.	*J Pharm Pract and Research* 2003; 33(4):265-267	Two ambulatory care pharmacies in metro Wash. DC	"Cognitive Pharmacy Services"	Self-admin-istered question-naire	90	40% were willing to pay more than $10 for a single "pharmaceutical care evaluation"; 63% were "willing to pay for a pharmaceutical care evaluation with a year of monitoring by the pharmacist"	Not estimated	"Many patients would be willing to pay for this type of service and they would pay more for long-term services"
Cerulli J, Zoella M.	*J Am Pharm Assoc* 2004;44:161-167.	Two indepen-dent and four chain community pharmacies	Community pharmacy based bone mineral density screening and education program	Self-admin-istered survey conducted after a free BMD screening was conducted	140	41% indicated a willingness to pay $20 or more	Not estimated	"Patients are willing to pay for this service; feasibility varies depending on available resources and patient population served"
Côté I, Grégoire J-P, Moisan J, et al.	*Pharmaco-economics* 2003;21(6): 415-428.	Nine pharmacies in Quebec City, CA	A nine-month pharmacy-based health promotion program in hyperten-sion	Face-to-face interviews	41	Pre intervention: 17.1% were willing to pay more than $0 Post intervention: 4.9% were willing to pay more than $0	Pre intervention: $Can3.29 Post intervention: $Can0.54	"The lack in willingness to pay post intervention may be due to the fact that participants did not see much change in the way their disease had been managed"

Table 2: Average Willingness to Pay for Pharmacist Provided Disease Management Programs (converted to 2005 Dollars)

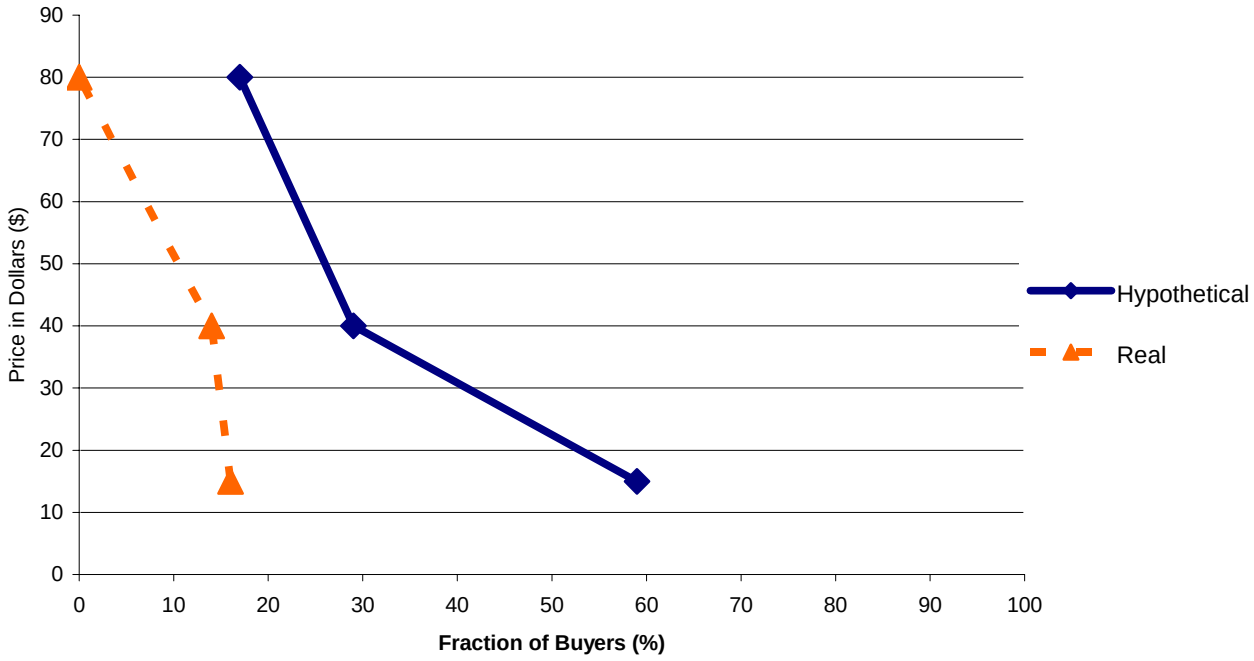
(*Note*: 'Hypothetical' refers to the amount consumers ***state* they would be willing to pay given a hypothetical purchase scenario; 'Real' refers to the amount consumers are actually willing to pay from their own funds.)**

	Asthma	***Dyslipidemia***	***Diabetes***
Mean HYPOTHETICAL Willingness to Pay	$32.18	$25.77	$37.69
Mean REAL Willingness to Pay	$9.91	$16.87	$22.41

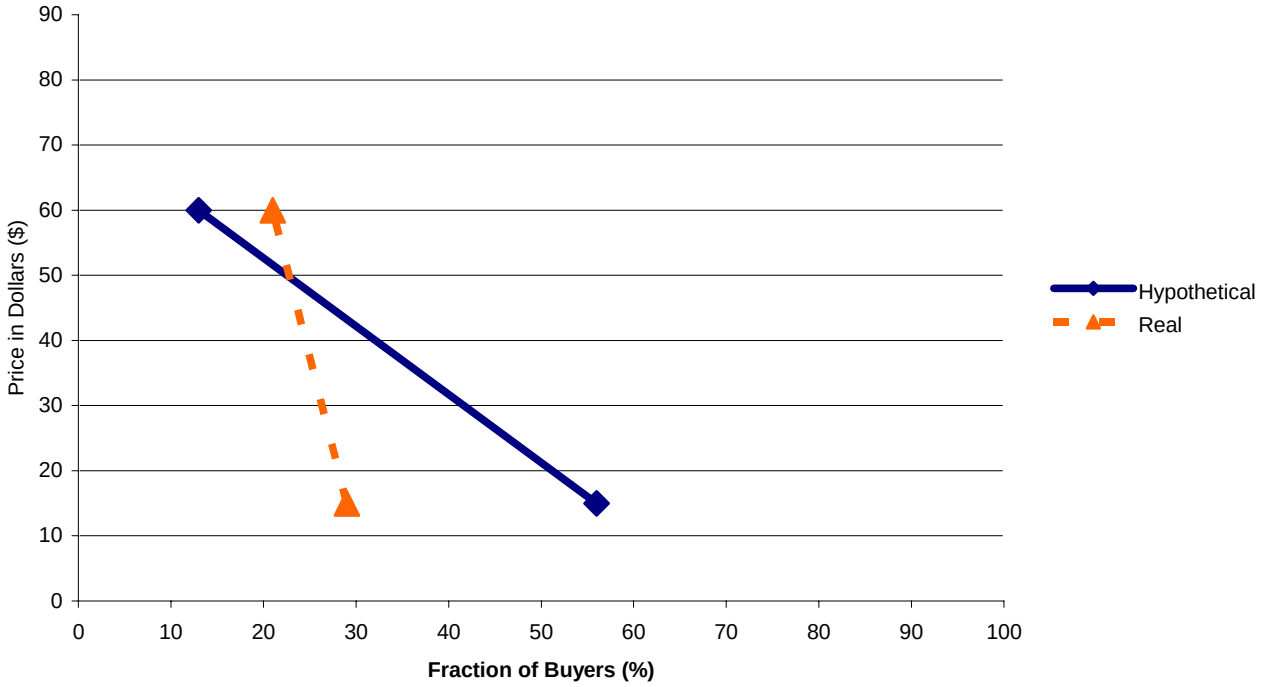
Figure 1: Demand Curves for Pharmacist Provided Disease Management Services

(*Note*: 'Hypothetical' refers to the amount consumers ***state* they would be willing to pay given a hypothetical purchase scenario; 'Real' refers to the amount consumers are actually willing to pay from their own funds. All demand curves were derived using the non-parametric methods of Kriström.)**

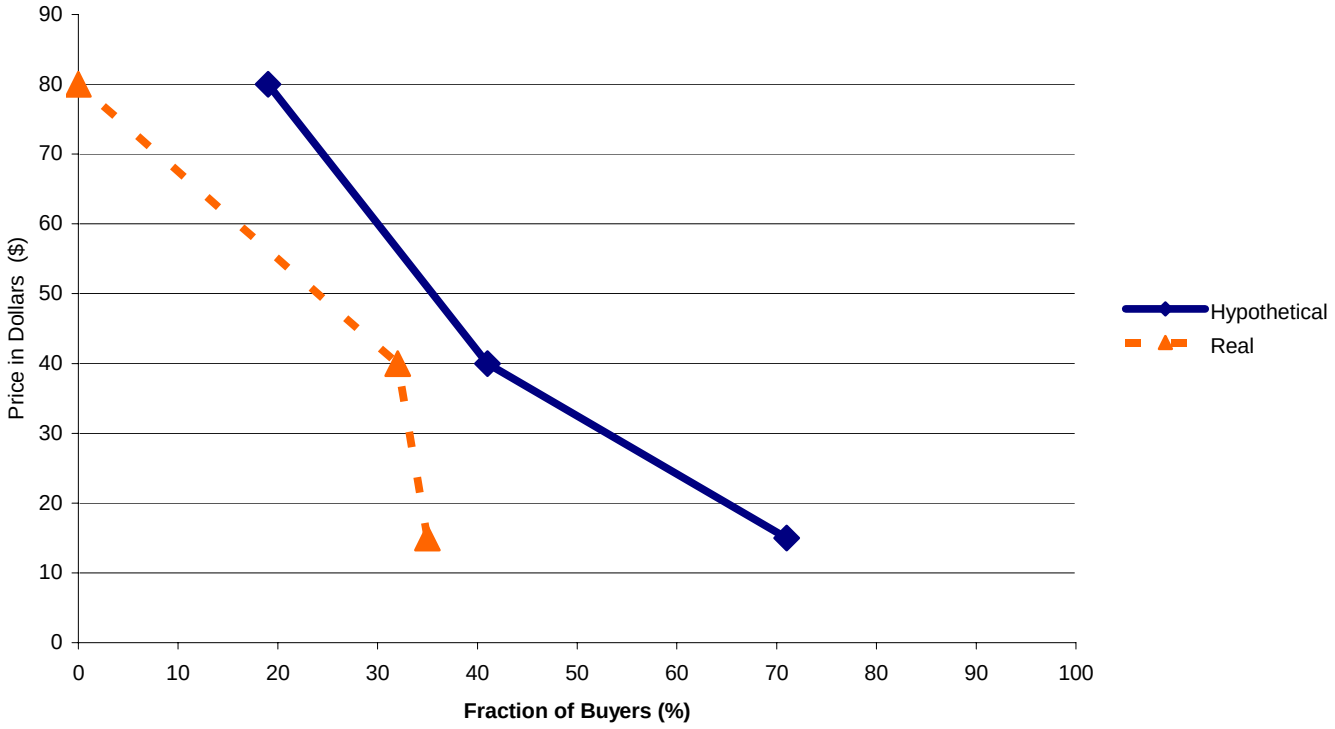
a. Asthma



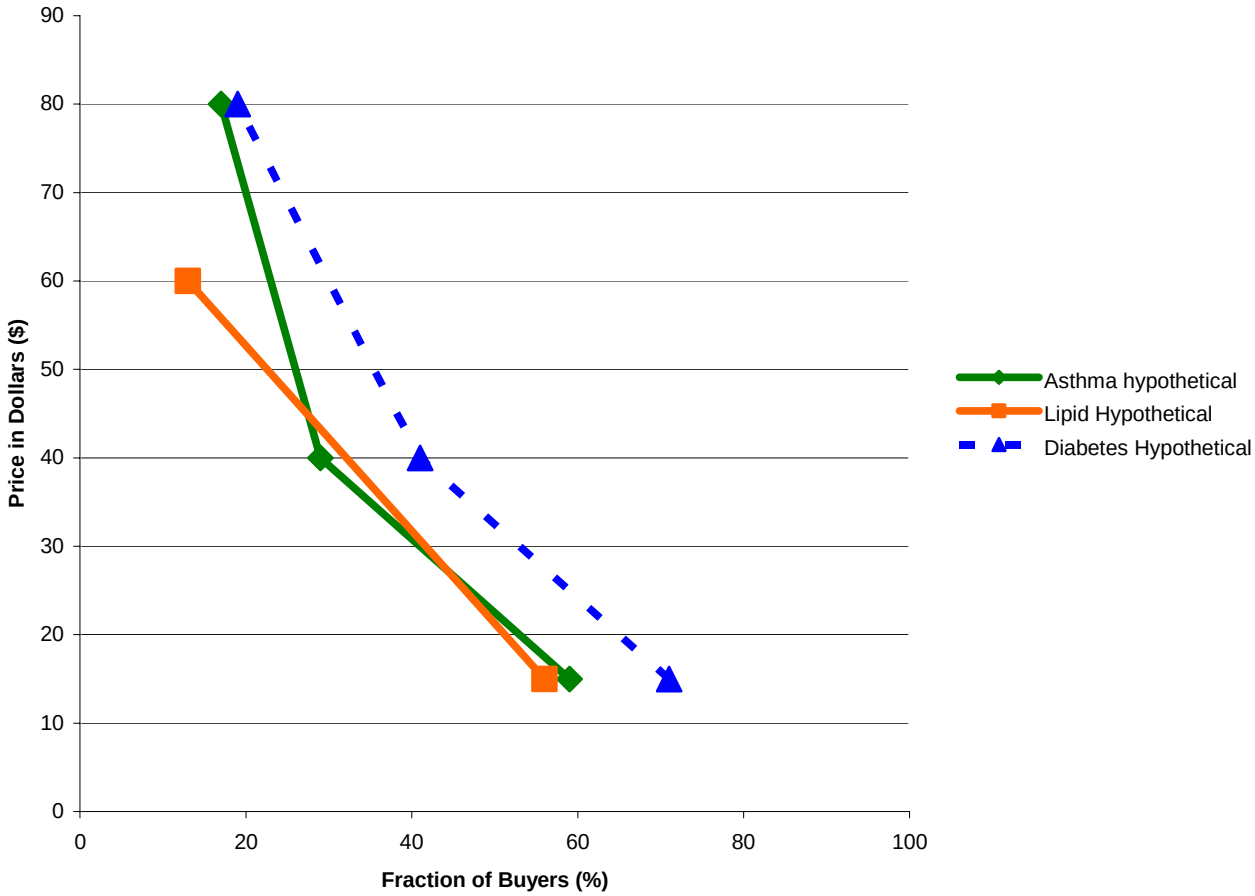
b. Dyslipidemia



c. Diabetes


90
80
70
60
50
40
30
20
10
0
Price in Dollars ($)
0
10
20
30
40
50
60
70
80
90
100
Fraction of Buyers (%)
Hypothetical
Real

d. Demand curves based on the hypothetical responses for all 3 services



e. Demand curves based on the real responses for all 3 services

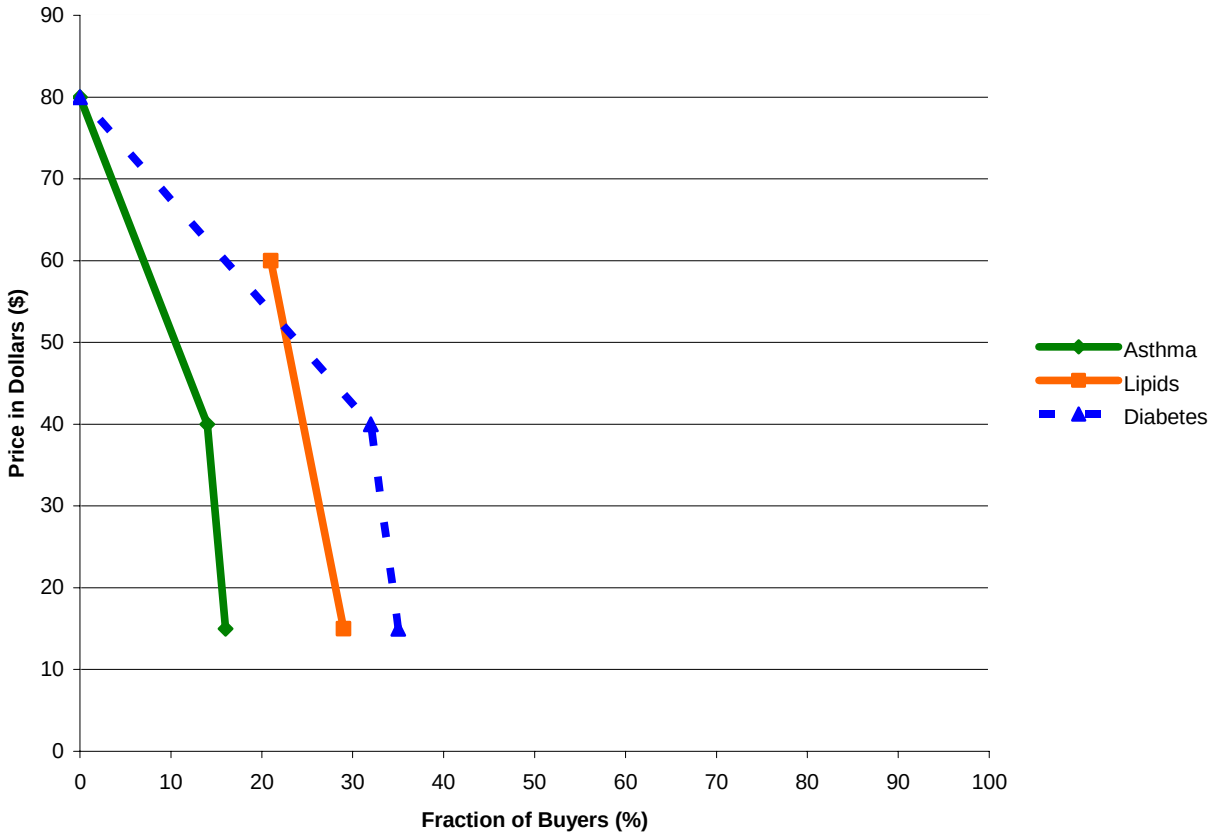


Figure 2: Motivation Responses for Why Consumers Did Not Purchase Pharmacist Provided Disease Management Services