340B Drug Pricing Program
Results of a Survey of Participating Hospitals

A Joint Publication of

The NORC Walsh Center for Rural Health Analysis (1)

Working Paper #2007-03

And

The North Carolina Rural Health Research & Policy Analysis Center (2)

Working Paper #90

Authors:

Claudia Schur, Ph.D. (1)

Karen Cheung, M.P.H. (1)

Andrea Radford, Dr.P.H. (2)

Rebecca Slifkin, Ph.D. (2)

Marianne Baernholdt, Ph.D. (2)

May, 2007

This study was funded under a cooperative agreement with the Federal Office of Rural Health Policy (ORHP), Health Resources and Services Administration, U.S. Department of Health and Human Services, Grant Numbers 5-U1CRH037-02-00 (North Carolina Center) and 1U1CRH03715-02 (NORC Walsh Center). The conclusions and opinions expressed in this paper are the authors' alone; no endorsement by the University of North Carolina, NORC, ORHP, or other sources of information is intended or should be inferred.

The Walsh Center for Rural Health Analysis was established in 1996, with funding from the Federal Office of Rural Health Policy, to conduct timely research on issues affecting health care in rural America. The Walsh Center focuses on issues such as changes in Medicare payments to rural providers, access to care for rural residents, and rural public health infrastructure. For more information about the Center and its publications, please contact:

The NORC Walsh Center for Rural Health Analysis
7500 Old Georgetown Road, Suite 620
Bethesda, MD 20814
Phone: (301) 951-5070
Fax: (301) 951-5082
www.norc.org/issues/health6.asp

The North Carolina Rural Health Research & Policy Analysis Center (NCRHR&PAC) is built on the thirty-five year history of rural health services research at the University of North Carolina's Cecil G. Sheps Center for Health Services Research. Established in 1987 with funding from the Federal Office of Rural Health Policy, the NCRHR&PAC focuses on issues of measures of underservice, Medicare reimbursement policy, Medicaid, and access to care. For more information about the Center and its publications, please contact:

North Carolina Rural Health Research & Policy Analysis Center
725 Martin Luther King Jr, Boulevard, CB7590
Chapel Hill, NC 27599-7590
Phone: (919) 966-5541
Fax: (919) 966-5764
www.shepscenter.unc.edu/research_programs/rural_program/

The authors wish to acknowledge Jeff Spade from the North Carolina Hospital Association, Jeanene Meyers from the federal Office of Pharmacy Affairs, HRSA and Keith Midberry from the federal Office of Rural Health Policy, HRSA, for their provision of background information.

Executive Summary

The 340B Drug Pricing Program enables certain types of safety net organizations to obtain deeply discounted medications, at prices below the "best price" typically offered to Medicaid agencies. In the past, few rural hospitals qualified for the 340B program, but the 2003 Medicare Modernization Act has revised eligibility criteria, thereby allowing many rural hospitals to participate. This report presents the results of a 2006 survey of pharmacy directors at rural hospitals currently buying discounted outpatient drugs through the 340B program. Hospitals were classified as rural if they are located in non-metropolitan counties as identified by the U.S. Office of Management and Budget. The purpose of this study was to understand the perspectives of pharmacy directors at participating hospitals on the 340B program in general, the financial impact of the program, and which specific program features presented barriers to its broader implementation. In addition, to determine if there are differences in the characteristics of eligible rural participating and non-participating hospitals, selected results are compared to those from a separate companion survey of pharmacy directors at hospitals that were eligible but not participating in the 340B program.

In June 2006, a self-administered survey was mailed to pharmacy directors of 150 rural hospitals identified as participating in the 340B program through the Health Resources and Services Administration's (HRSA) Office of Pharmacy Affairs' (OPA) online database. The final response rate for the survey was 71 percent. The distribution of eligible rural hospitals is quite skewed geographically, with a disproportionate share in the South. There were substantial differences between participating and non-participating hospitals in terms of revenue and services offered. Participation rates increase directly with annual revenue: the proportion of hospitals participating is twice as high among hospitals with over $100 million in annual revenue as in those with less then $50 million of revenue each year. Participating hospitals also provide a much higher volume of the types of outpatient services—ambulatory surgery, emergency departments, primary care clinics, and home health care—where the ability to offer reduced price drugs might be advantageous.

For participating rural hospitals, the average monthly savings is approximately $19,700 on total outpatient drugs; some hospitals reported saving an average of 24 percent of the pharmacy budget. About 96 percent of all respondents stated that they were satisfied with the discount they received. Savings from purchasing discounted outpatient drugs have been used to offset losses from providing pharmacy services (71 percent), increase and/or improve services at the hospital (51 percent), offset losses in other departments (41 percent), reduce medication prices to the patient (27 percent), and increase the quantity and/or variety of drugs available (16 percent).

When asked how they would describe their understanding of the 340B program, the vast majority of those participating (97 percent) indicated that they understand the program at least well enough to use it. Popular sources of information about the program include the HRSA OPA, the 340B Prime Vendor Program, the Public Hospital Pharmacy Coalition, and colleagues. The biggest challenge in administering the program cited by pharmacy directors was maintaining separate records for inpatient and outpatient drugs, and one-third of respondents stated that this remains a challenge for them. Among those who participate, there is a high level of understanding of the program, but there is less awareness of the resources available. For those who have encountered significant problems in administering the program, there may be untapped resources available, and additional efforts are needed to ensure that eligible entities are aware of the many free services pertaining to the 340B program. Steps to disseminate this information and facilitate technical assistance may help

entities better understand the value of the 340B program: it can decrease costs for rural hospitals, it can save state and federal funding, and it can increase access to quality pharmaceutical services.

Introduction

Beginning in 1992, Section 340B of the Public Health Service Act required drug manufacturers to provide outpatient drugs to certain covered entities at a reduced price. Covered entities include Medicare Disproportionate Share Hospitals (DSH), as well as specified grantees of the Public Health Service, such as federally qualified health centers, state-operated AIDS drug assistance programs, public housing primary care clinics, and homeless clinics. Though the federal 340B Drug Pricing Program currently enables over 12,000 health care facilities—including many rural hospitals—to purchase discounted outpatient drugs,[1] prior to the Medicare Modernization Act of 2003 (MMA), few rural hospitals qualified for the program. With the MMA, several changes were made to eligibility requirements that increased the number of rural hospitals qualifying for participation. (For the purposes of this study, hospitals in non-metropolitan counties as identified by the U.S. Office of Management and Budget were classified as rural.) These changes included raising the DSH adjustment threshold required for participation from 5.25 to 11.75 percent, applying the 'urban hospital' formula to rural hospitals with fewer than 500 beds, and, for rural hospitals that are not rural referral centers, changing the DSH cap.[2] These combined modifications have made almost 400 rural hospitals eligible to participate in the 340B program[3] and thus able to obtain deeply discounted medications, at prices below the "best price" typically offered to Medicaid agencies. Covered outpatient drugs include prescription drugs and over-the-counter drugs that are prescribed or administered in ambulatory settings within the hospital, such as the emergency room or outpatient clinics.

According to the Health Resources and Services Administration's (HRSA) Office of Pharmacy Affairs (OPA), as of June 2006, only 150 rural hospitals were participating in the 340B program. While 340B prices are proprietary and confidential, estimates of savings on pharmaceuticals are sometimes as much as 50 percent off the list price, or approximately 25 to 30 percent off the price entities might pay through a group purchasing organization (GPO). A previous study has shown that over half of covered entities saved more than 30 percent on prescription drugs as a result of the program.[4] Furthermore, covered entities indicate that they have improved healthcare delivery in their communities by using savings to reduce the price of medications for patients, expand the number of drugs on the formularies, increase the number of indigent patients treated, and expand other services for patients.[5]

The purpose of this study was to understand the perspectives of pharmacy directors at participating hospitals on the 340B program in general, the financial impact of the program, and which specific program features presented barriers to its broader implementation. This report presents the results of a 2006 survey of pharmacy directors at rural hospitals currently buying discounted outpatient drugs through the 340B program. In addition, to determine if there are differences in the characteristics between eligible rural participating and non-participating hospitals, selected results are compared to those from a separate survey of pharmacy directors at hospitals that were eligible but not participating in the 340B program. This work was conducted for the federal Office of Rural Health Policy (ORHP) by researchers from the NORC Walsh Center for Rural Health Analysis and the North Carolina Rural Health Research and Policy Analysis Center.

Methodology

The NORC Walsh Center for Rural Health Analysis and the North Carolina Rural Health Research and Policy Analysis Center collaborated in the design of the survey instrument. Subsets of the questions in the survey were piloted in telephone interviews with nine pharmacy directors and/or other hospital administrators (e.g., Chief Financial Officer). This testing was done to assist in the development of the final survey by ascertaining whether or not the questions were understood by respondents and whether their responses provided the information needed for assessing the benefits of and obstacles to participation. Through the pilot telephone interviews, pharmacy directors were identified as the most appropriate person to complete the survey.

The sampling frame for the survey was the OPA's *Disproportionate Share Hospitals & Their Disproportionate Share Adjustment Percentages spreadsheet*, available online. Defining rural hospitals as those in non-metropolitan counties, 150 rural hospitals were identified as participating in the 340B program. In June 2006, the self-administered mail survey, along with a cover letter and pre-paid return envelope, was sent via overnight service to the rural hospitals, addressed to the respective pharmacy directors. The hospitals that had helped pilot the survey through telephone interviews were also included in this sample, and they were sent a separate cover letter. Three business days after the mailing, telephone interviewers began prompting calls to respondents to ensure that they had received the survey and to request its completion.

Respondents returned completed surveys by mail and fax; one survey was completed by telephone with an interviewer. Of the 150 surveys that were sent out, 14 respondents indicated that their facility was not participating in the 340B program, another 6 had signed up for the program but had not started active participation, and 92 respondents returned completed surveys. The final response rate was 71 percent (92 completes out of 130 eligibles). Results from the companion survey of eligible but non-participating hospitals, linked with data from the Medicare cost reports, were used to make comparisons with participating hospitals.[i]

Results

Comparisons between Participating and Non-Participating but Eligible Hospitals

Table 1 provides a comparison of annual revenue and geographic location of participating and non-participating rural hospitals that are eligible for the 340B program. Approximately half of eligible rural hospitals had less than $50 million in annual revenue, and participation in the 340B program is lowest in this category. The proportion of eligible hospitals participating in the 340B program rises with revenue, from 28 percent for hospitals with less than $50 million in annual revenue to 61 percent for those hospitals with over $100 million in annual revenue. The distribution of eligible rural hospitals is quite skewed geographically, with a disproportionate share in the South. The South

[i] A copy of that report, *340B Drug Pricing Program: Results of a Survey of Eligible but Non-Participating Rural Hospitals*, can be obtained at http://www.norc.org/NR/rdonlyres/05B9B502-2D62-4196-A2D8-B584ECAC8C22/0/WalshCtr2007_WP88.pdf and http://www.shepscenter.unc.edu/research_programs/rural_program/WP88.pdf

Atlantic, East South Central, and West South Central Census divisions account for 293, or 75 percent, of the 390 eligible hospitals. Participation rates vary—one Census division had no hospitals participating, three have participation rates less than 20 percent, four have participation rates between 26 and 49 percent, and only one has at least half of hospitals participating. These participation rates may be driven, to some extent, by specific states—for example, in North Carolina 22 of 26 eligible hospitals are participating; in Kentucky 21 of 28 eligibles are in the program, and in Georgia 16 out of 30 eligible are enrolled. Other states that have high participation rates have very small numbers of eligible hospitals so comparison is not meaningful.

Table 1. Participating and non-participating but eligible hospitals: revenue and U.S. Census division

	Number of eligible rural hospitals	**Percent participating (n=150)**	**Percent not participating (n=240)**
All	390	38%	62%
Annual revenue (millions of $)			
Less than $50	176	28	72
$51 - $100	103	41	59
Over $100	92	61	39
Missing	*19*	*16*	*84*
Census division			
New England	5	0	100
Middle Atlantic	10	30	70
East North Central	11	18	82
West North Central	22	14	86
South Atlantic	90	53	47
East South Central	109	44	56
West South Central	94	37	63
Mountain	30	17	83
Pacific	19	32	68

Source: Based on tabulations of the HRSA OPA Participating Hospital database linked to Medicare cost reports.
Please see Appendix for Census Bureau Regions and Divisions.

Respondents were queried about hospital characteristics that might be related to the potential benefit from participating in the 340B program. There was considerable variability in staffing among the hospitals. At participating hospitals, there were an average of almost 4 full-time pharmacists and an average of 5.5 full-time pharmacy technicians. Average pharmacy staffing for eligible but not participating hospitals was lower, with an average of 2.3 full-time pharmacists and 3.0 full-time pharmacy technicians. Ten of the eligible but not participating respondents reported no full-time pharmacist. Other types of pharmacy staffing reported included nurses (6%), assistants or clerks (5%), and relief and consultant pharmacists (6%).

The extent of savings potentially achieved by a hospital is related to the type of services offered and their utilization level, particularly those services where drugs are more likely to be prescribed or administered. In Table 2, participating and non-participating hospitals are compared in terms of the types and volume of services provided. The vast majority of participating and non-participating

hospitals offer ambulatory day surgery and operate an emergency department. However, the volume of cases reported differs substantially across the two categories of hospitals—participating hospitals had more than five times the volume of eligible, non-participating hospitals in ambulatory or day surgery cases, and more than two times the emergency department volume. Fewer hospitals of either type offer a primary care clinic or rural health center (just under half of participating and non-participating), but again, there are differences in volume, with the number of cases at participating hospitals almost two times that of eligible, non-participating hospitals. Half of non-participating hospitals offer home health services compared to 39 percent of participating hospitals, though participating hospitals report twice as many cases per month.

Table 2. Participating and non-participating but eligible hospitals: hospital services

	Participating hospitals (n=92)		**Non-participating hospitals (n=80)**	
	Percent providing (%)	**Average cases per month (#)**	**Percent providing (%)**	**Average cases per month (#)**
Ambulatory or day surgery	98	304	86	55
Emergency department	97	2,061	98	855
Primary care/rural health clinic	47	1,869	48	1,085
Home health	39	1,191	50	540

Under the 340B program, covered drugs include outpatient prescription drugs, over-the-counter drugs, and drugs administered to outpatients within the facility, such as the emergency room and other ambulatory care settings. Participants have been shown to save over 30 percent on oncology products,[6] and covered entities have reported substantial savings on high-cost drugs, such as medications used for rheumatoid arthritis, chronic renal failure, and autoimmune diseases. While both participating and non-participating hospitals appear to frequently administer many of these high-cost drugs, participating hospitals are consistently more likely to do so than non-participating hospitals. About 86 percent of participating hospitals surveyed administer Aranesp® or Epogen® (Table 3), drugs used in the treatment of anemia in patients with chronic renal failure on dialysis. In comparison, 68 percent of non-participating hospitals administer these drugs. Intravenous immunoglobulin was administered by about 58 percent of participating and 44 percent of non-participating hospitals. At the lower end, Lupron Depot® was administered by only 38 percent of participating hospitals and 21 percent of non-participating hospitals. Average monthly volume was substantially higher in participating hospitals for Aranesp® or Epogen® and chemotherapy medications, with volumes over five times as high for the former and over ten times for the latter. For the other drugs, however, volume was quite low and similar for both types of hospitals. Overall, participating rural hospitals were larger and were more likely to administer high cost drugs than non-participating hospitals.

Table 3. Participating and non-participating but eligible hospitals: high-cost drugs

	Participating hospitals (n=92)		Non-participating hospitals (n=80)	
	Percent providing (%)	Average doses per month	Percent providing (%)	Average doses per month
Aranesp® or Epogen®	86	111	68	20
Intravenous Immunoglobulin	58	6	44	8
Remicade®	54	7	38	3
Chemotherapy	54	184	20	17
Lupron Depot®	38	4	21	3

Note: Totals exceed 100% because responses are not mutually exclusive.

Results for Participating Hospitals

Purchase of 340B Drugs for Participating Hospitals

Eighty percent of hospitals surveyed began administering the 340B program in 2004 or 2005, with the remaining hospitals beginning in 2006. Most hospitals (76 percent) participate in the 340B Prime Vendor Program (PVP), which helps negotiate lower outpatient drug prices for the benefit of the covered entities in the program. Since September 2004, the 340B PVP has been managed by HealthCare Purchasing Partners International® (HPPI) through a contract awarded by HRSA. HPPI is a GPO that negotiates, bids, and contracts for all outpatient medications, using the volume of drugs ordered to drive down the per drug unit cost for the group.[7] Under the terms of the agreement, the Prime Vendor is to carry out three primary functions: negotiate drug prices below the statutorily required 340B ceiling price; enter into favorable distribution agreements with multiple drug wholesalers; and provide discounts on other value-added pharmacy products and services. The negotiated prices range from 1 to 49 percent below the statutory 340B ceiling price, and numerous products and services have also been added, such as discount pricing for diabetic supplies, vaccines at Federal government equivalent prices, patient assistance programs, split-billing software solutions, inventory management and tracking systems, and other outpatient-related products and services. There is no cost or risk associated with enrolling in the 340B PVP, and OPA strongly encourages entities to participate and take advantage of the additional cost savings available through the PVP.

All but one respondent indicated they used a GPO for inpatient drugs and other products, separate from the PVP. The PVP does not negotiate inpatient pricing; its efforts are dedicated to outpatient products and services. Health care facilities can secure additional discounts on inpatient drugs through their other GPOs or by negotiating discounts. When asked if participation in the 340B program affected the discount they received on inpatient drugs and other items from their GPO, 59 percent responded that it did not and another 15 percent did not know. For less than a quarter of hospitals, participation in 340B may have indirect costs by decreasing discounts formerly available through a GPO.

Of the participating hospitals providing ambulatory/day surgery or emergency department services, three-quarters purchased drugs for these services through the 340B program. For participating

hospitals with a primary health clinic or rural health center, 47 percent purchased drugs for these services through the 340B program (Table 4). Only 14 percent of those with home health purchased 340B drugs for this service. With the exception of intravenous immunoglobulin, participating hospitals administering high-cost drugs were quite likely to purchase them through the 340B drug program, with proportions upwards of 80 percent.

Table 4. Hospital services and use of the 340B program

	Purchased through 340B (%)
Hospital Services	
Ambulatory or day surgery	76
Emergency department	75
Primary care/rural health clinic	47
Home health	14
Drugs	
Aranesp® or Epogen®	72
Intravenous Immunoglobulin	42
Remicade®	80
Chemotherapy	80
Lupron Depot®	77

Note: Totals exceed 100% because responses are not mutually exclusive.

Information & Technical Assistance

When asked how they would describe their understanding of the 340B program, the vast majority of those participating (97 percent) indicated that they understand the program at least well enough to use it. Of these, however, three-quarters still have questions about the program.

With respect to the information sources used to learn more about the 340B program, many respondents cited multiple sources. Both the OPA and a colleague from another hospital were cited by half of the respondents as a source of information (Table 5). In addition, the 340B PVP and the Public Hospital Pharmacy Coalition were (PHPC) also common resources. Other sources of information were state Departments of Health, drug wholesale vendors, and consultants.

Table 5. Information sources (N=92)

	Percent of participating hospitals using source (%)
HRSA Office of Pharmacy Affairs (OPA)	50
Colleague from another hospital (e.g., pharmacy director or administrator)	50
340B Prime Vendor Program (PVP)	49
Public Hospital Pharmacy Coalition (PHPC)	46
Group purchasing organization (GPO)	40
CEO, CFO, or corporate office	38
State hospital association	21
HRSA Pharmacy Services Support Center (PSSC)	17
HRSA Office of Rural Health Policy (ORHP)	7
National hospital association	3
Other	13

Note: Totals exceed 100% because responses are not mutually exclusive.

Several agencies and organizations offer technical assistance (TA) related to the 340B program. The OPA Pharmacy Technical Assistance Initiative, called OPA PharmTA, offers entities an opportunity for pharmacy technical assistance via a team of consultants with expertise in the 340B implementation and clinical pharmacy services. This government-supported, free-of-charge technical assistance program for entities is managed through the Pharmacy Services Support Center (PSSC). Services and information may assist in the design and implementation of in-house pharmacies utilizing the 340B and Prime Vendor Programs, the implementation of contracted pharmacy arrangements, formulary development, pharmacy computer software selection and integration, and other issues.

In addition, the independent organization PHPC holds regular events, such as discussions, workshops, and presentations, to help monitor, educate, and serve as an advocate on federal legislative and regulatory issues related to drug pricing and other pharmacy matters affecting safety-net providers.

Slightly less than one-third of the respondents utilized the technical assistance services offered by the OPA (Table 6).[ii] Almost as many indicated that they received technical assistance from a consultant and a similar proportion reported using the PHPC. Those who received TA had very positive feedback regarding their experience; the vast majority of those who used technical assistance found it helpful.

[ii] It is possible that there is overlap across the OPA and PSSC response categories. The PSSC operates under a contract between the American Pharmacists Association and OPA, and there is a link to the PSSC website from the OPA website. Thus, respondents may not have clearly differentiated between the two.

Table 6. Technical assistance (N=92)

Source of technical assistance	TA was used (%)	Very or somewhat helpful (%)
HRSA Office of Pharmacy Affairs (OPA)	30	93
Public Hospital Pharmacy Coalition (PHPC)	28	93
Consultant	27	92
HRSA Pharmacy Services Support Center (PSSC)	16	93
State hospital association	16	93
HRSA Office of Rural Health Policy (ORHP)	11	100
National hospital association	1	100
Other	8	86

Note: Totals exceed 100% because responses are not mutually exclusive

As shown in Table 7 below, the most common form of TA received among the participating hospitals surveyed was establishing a record system to separately track inpatient and outpatient drugs (36 percent), followed by assistance with completing the application (29 percent), and conducting a cost-benefit analysis to estimate savings (20 percent). Because covered entities cannot receive 340B discounts for the same drugs for which Medicaid will request a rebate, the OPA requests the Medicaid billing status of covered entities in order to help drug manufacturers and Medicaid programs ensure there is no overlap on drug discounts and rebates. For example, covered entities are asked to submit their Medicaid pharmacy numbers (the number used to bill Medicaid for medications) to OPA; state Medicaid agencies use this information to identify covered entity pharmacy bills and exclude them from the rebate program. Sixteen percent of the hospitals surveyed received help on tracking medications provided to Medicaid patients.

Table 7. Types of technical assistance received (N=92)

	TA was used (%)	Very or somewhat helpful (% of those who had used TA)	TA was not used (%)	Would have liked to receive TA (% of those who had not used TA)
Establishing a record system to separately track inpatient and outpatient drugs	36	91	64	54
Completing the application	29	96	71	24
Conducting a cost-benefit analysis to estimate potential savings	20	89	80	46
Tracking medications provided to Medicaid patients	16	87	84	38
Arranging a contract with a state or local government to provide indigent care (private hospitals only, N=68)	13	100	87	17
Other	2	100	n/a	n/a

Again, feedback for all these services was overwhelmingly positive. For those who did not receive TA, many indicated that they could have used such help; in particular, just over half of those who did not receive TA would have liked help with establishing a record system for tracking drugs (inpatient and outpatient), 46 percent would have liked TA conducting a cost-benefit analysis, and 38 percent indicated a need for TA for tracking drugs provided to Medicaid patients. Technical assistance provided through HRSA's programs is free of charge to entities. However, when asked if hospitals paid for the services they received, 15 percent said that there had been a charge for some or all of the TA. These may have pertained to services provided by private organizations.

Program Operation and Barriers

The biggest problem in administering the program cited by respondents was maintaining separate records for inpatient and outpatient drugs (Table 8). One-third stated that this remains a challenge for them. A few commented they are trying to work with their Information Systems department to sort out the separation process or buy new split-billing software, while one pharmacy is manually tracking the drugs on a spreadsheet. Others remarked that maintaining separate records for inpatient and outpatient drugs is time-consuming.

To resolve the challenge of maintaining separate records for Medicaid and 340B drugs—a problem for 36 percent of the hospitals surveyed—several hospitals have created separate accounts for their Medicaid patients. Again, similar to the comments reported above, pharmacy directors said this process is very time-consuming.

Almost half of participating hospitals indicated that they did not have sufficient personnel to administer the 340B program. One pharmacy has hired one full-time equivalent staff person to manage and oversee the program, and another stated that the process for buying 340B drugs "takes time, lots of time." Two respondents said that staff has had to work overtime to administer the program.

Though few respondents stated that they had major problems receiving 340B pricing from their vendors, some did comment that not all vendors provide 340B pricing. Furthermore, two pharmacy directors said that the 340B prices they receive are higher than their hospital's GPO prices.

Table 8. Challenges in implementation and administration of the 340B program (N=92)

	Big/moderate problem when implementing (%)	Remains a problem (%)
Maintaining separate records for inpatient/outpatient drugs	61	34
Having sufficient personnel to administer the program	49	27
Maintaining separate records for Medicaid/340B drugs	36	17
Issues with the vendor that you purchase drugs from	19	13

Note: Totals exceed 100% because responses are not mutually exclusive

Financial Impact of Participation

In 2005, the American Society of Health-System Pharmacists reported that one 90-bed rural hospital in Kentucky was saving more than $300,000 a year with the 340B program, while the savings for a 180-bed Michigan hospital topped $850,000.[8] Precise estimates of the actual savings on prescription drugs among 340B program participants are often difficult to measure and compare since prices vary across organizations. Thus, the prices used—whether average manufacturer price, wholesaler discount, 340B ceiling prices or some other metric—might affect the level of savings calculated. For the purposes of this study, an appropriate measure of savings is the difference between the price paid by participants and the price participants would have paid in the absence of the 340B program discount. Survey participants were asked to report their savings, either as actual dollars or a percentage of the hospital/pharmacy budget.

Respondents from seventy-one hospitals reported their pharmacy savings as dollar amounts. The median monthly savings on total outpatient drugs for these hospitals is approximately $10,000 (meaning half of the hospitals saved more than that and half saved less) and the mean savings is reported as $19,700 (Table 9).[iii] There is a very wide range, with reporting savings of about $600 per month in one hospital and approximately $158,000 per month in another. Nineteen respondents reported their savings as a percentage of the pharmacy budget. These hospitals saved an average of 24 percent of the pharmacy budget (Table 10). About 96 percent of all respondents stated that they were satisfied with the discount they received.

Table 9. Pharmacy savings per month, dollar amount (N=71)

	Dollar
Mean	$ 19,688
25th Percentile	$ 3,500
50th Percentile (Median)	$ 10,000
75th Percentile	$ 27,083

Note: Savings does not constitute return on investment; that is, the resources and expenditures needed to implement the program were not accounted for in the participating hospitals' calculation of cost savings.

Table 10. Pharmacy savings, percentage of pharmacy budget (N=19)

	Percent (%)
Mean	24
Median	25
Lowest	10
Highest	40

Note: Savings does not constitute return on investment; that is, the resources and expenditures needed to implement the program were not accounted for in the participating hospitals' calculation of cost savings.

[iii] The mean savings are substantially higher than the median savings because of a small number of hospitals with very large reported savings.

Cost savings for specific drugs have the potential to be substantial. Almost three-quarters of respondents indicated that they have experienced financial savings specifically for the drugs Epogen® and Aranesp® (Table 11).

Table 11. Percent with savings on high-cost drugs (N=92)

	Percent (%)
Epogen® or Aranesp®	73
Chemotherapy	51
Remicade® infusion	39
Lupron® injections	28
Other high-cost drugs	39
No high-cost drugs delivered in an outpatient setting	10

Numerous other brand-name drugs were reported to have been purchased through the 340B program, such as those used to reduce the side effects of chemotherapy (e.g., Zofran®), to reduce mortality in the event of a heart attack (e.g., TNKase), and anticoagulants (e.g., Lovenox®). Although hospitals participating in the 340B program have received discounts on a variety of outpatient drugs, high-cost drugs such as Epogen®, Aranesp®, Remicade®, Lupron®, and other chemotherapy drugs, account for much of the savings. Forty-one percent of the respondents surveyed said that these drugs contribute over half of their financial savings in the 340B program (Table 12).

Table 12. Cost savings attributed to high-cost drugs (N=92)

	Percent (%)
Less than 10%	11
10 – 25%	29
26 – 50%	18
Over 50%	41

Entities participating in the program are free to allocate cost savings however they would like. As shown in Table 13 below, savings from purchasing discounted outpatient drugs have been used to offset losses from providing pharmacy services (71 percent), increase and/or improve services at the hospital (51 percent), offset losses in other departments (41 percent), reduce medication prices to the patient (27 percent), and increase the quantity and/or variety of drugs available (16 percent). One respondent indicated that they used the savings to provide care to the indigent population.

Table 13. How cost savings from the 340B program were used (N=92)

	Percent (%)
Offset losses from providing pharmacy services	71
Increase/improve the services available at the facility	51
Offset losses from other departments of the hospital	41
Reduce medication price to the patient	27
Increase the quantity/variety of drugs available	16
Don't know	8
Other	2

Note: Totals exceed 100% because responses are not mutually exclusive

Discussion

The results of this survey suggest that the 340B program has allowed rural hospitals to buy outpatient drugs at reduced prices and benefit from substantial cost savings: mean savings reported by respondents were $19,700 per month (approximately $236,400 per year). These savings are important—especially for safety net organizations such as rural hospitals—in supporting their ability to provide health care services to low income and other vulnerable populations. Hospitals may choose to pass some or all of the savings on to their patients or savings may be passed back to state and federal agencies, which are struggling to pay for increasing Medicare and Medicaid costs. Most of the rural hospitals in this study had an on-site pharmacy, and they used the savings to offset losses from providing such services; thus, participation in the 340B program appears to improve the financial viability of offering pharmacy services in rural hospitals.

More than 96 percent of the rural hospital pharmacy directors declared themselves "very satisfied" or "somewhat satisfied" with the discounts they received through the program. Though almost all respondents are pleased with the savings, many also are concerned about the regulatory and operational details of implementation. The most common complaint noted in the survey was the amount of time it took to administer the program, mainly due the separate tracking of inpatient and outpatient drugs. Participation in the 340B program required extra resources, notably staff time and, in some cases, new computer software. It is also important to note that extra resources needed were not in all instances included in the participating hospitals' calculation of cost savings. However, considering the amount of potential cost savings and the improved access to affordable medications, the benefits of the 340B program are likely to outweigh the initial start-up costs and logistical planning.

Among those who participate, there is a high level of understanding of the program, but there is less awareness of the resources available to assist with program implementation. HRSA provides a program that offers a range of free technical assistance services for eligible entities, but less than one-third of the respondents in this survey have utilized these services. For those who have encountered significant problems in administering the program, the HRSA program is an untapped resource. Steps to disseminate this information and facilitate technical assistance may help entities increase the value from 340B program participation. Maximization of benefit from the program can

decrease costs for rural hospitals, save state and federal funding, and increase access to quality pharmaceutical services.

References

[1] National Conference of State Legislatures. *State & Federal Issues:* States and the 340B Drug Pricing Program, 2006 edition. <http://www.ncsl.org/programs/health/drug340b.htm#Ref%20and%20Res> Accessed September 21, 2006.

[2] Powers Pyles Suter & Verville, PC. Eligibility of Rural Hospitals for the 340B Drug Discount Program. Public Hospital Pharmacy Coalition. Washington, DC: March 19, 2004.

[3] Data extracted from OPA, <http://opanet.hrsa.gov/opa/CE/CEExtract.aspx> Accessed June 1, 2006.

[4] Schmitz, Robert, S. Limpa-Amara, J. Milliner-Waddell, F. Potter. The PHS 340B Drug Pricing Program: Results of a survey of Eligible Entities**.** Mathematica Policy Research, Inc. August 2004.

[5] Richardson, Katheryne. The Public Health Service (PHS) Section 340B Drug Pricing Program: In Basic Language. *Draft version.*

[6] Hatwig, Christopher, MS, RPh, FASHP. "HRSA's 340B Drug Discount and Prime Vendor Programs" presentation. <http://www.340bpvp.com/faq/340B_and_PVP_Overview.pdf> Accessed October 9, 2006.

[7] Overall, 340B drug pricing through the prime vendor averages 20 to 24 percent less than what most hospitals typically pay for drugs through their GPO. *Source:* Woelkers, Joseph F. MA , F. Payne, RPh, and A. Knudsen, MS, RPh. Understanding Drug Purchasing from the Hospital Perspective. <http://www.accc-cancer.org/OPEN/woelkersjanfeb05.pdf#search=%22340b%20cancer%20drug%22> Accessed September 25, 2006.

[8] American Society of Health-Systems Pharmacists, *Pharmacy Practice News*, "Special Series: Small Hospitals," March 2005. <http://www.ashp.org/emplibrary/SpecialSeries-SRH.pdf> Accessed October 9, 2006.

Appendix: Census Bureau Regions and Divisions

Northeast	
New England	**Middle Atlantic**
Connecticut	New Jersey
Maine	New York
Massachusetts	Pennsylvania
New Hampshire	
Rhode Island	
Vermont	
Midwest	
East North Central	**West North Central**
Indiana	Iowa
Illinois	Nebraska
Michigan	Kansas
Ohio	North Dakota
Wisconsin	Minnesota
	South Dakota
	Missouri
South	
South Atlantic	**East South Central**
Delaware	Alabama
District of Columbia	Kentucky
Florida	Mississippi
Georgia	Tennessee
Maryland	
North Carolina	**West South Central**
South Carolina	Arkansas
Virginia	Louisiana
West Virginia	Oklahoma
	Texas
West	
Mountain	**Pacific**
Arizona	Alaska
Colorado	California
Idaho	Hawaii
New Mexico	Oregon
Montana	Washington
Utah	
Nevada	
Wyoming	