



Custom Medication Flavoring: Valuable Opportunities to Improve Customer Satisfaction, Store Loyalty, Patient Compliance and Pharmacy Revenues

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SUMMARY

A two part study explored the role of community pharmacy custom medication flavoring services. It reported on customer attitudes, preferences and opinions, willingness to pay, and the impact on pharmacy revenues. Awareness of such a service was found to be very low, yet demand was found to be high. It was also discovered that an overwhelming proportion of customers would patronize a pharmacy that consistently offered custom flavoring services, and they would highly recommend such a pharmacy to friends and neighbors. It is estimated that an individual store could gain 16-24 new customers per year and generate roughly \$51,000 to \$78,000 in new business by consistently promoting a custom-flavoring service. Therefore, it appears that custom flavoring is an untapped source for generating market share, revenue increases, and customer loyalty.

BACKGROUND and INTRODUCTION

“Wherever civilization arises we find pharmacy because it fulfills one of man’s basic needs.”¹ Surely, prehistoric man used some natural substances to treat illnesses, but that information is lost. Recorded history about drugs goes back to the Babylonian period, 3000 B.C. where the Sumerians recorded medication recipes on clay tablets. In the first century A.D. we find mention of 250 vegetable drugs and 120 mineral drugs. Some examples include: gum turpentine, styrax, galbanum, myrrh, asafetida, menthe, opium, glycyrrhiza, cannabis and thymus.² Clearly, it would require a high degree of determination to swallow some of these bitter and foul-tasting substances.

In the ensuing 5,000 years, our medications have improved in effectiveness, standards, and in some cases, palatability. For adult liquid medications, there was very little incentive to modify natural medicine tastes as it was commonly felt that bitter tasting medications must be very strong and potent. Most prescribed drugs were compounded at a local pharmacy until the early portion of the 20th century and there is virtually no mention of taste or palatability of medication at that time. However, after World War 1 the trend for prefabricated medications began and grew. Physician’s prescribed branded products produced at large pharmaceutical manufacturers. The pharmacist would dispense the required amount of medication manufactured elsewhere from large bottles purchased from wholesalers.

It appears that some independent compounding pharmacies since the mid-1970s have been offering optional flavoring of pediatric liquid medications, using their own formulas from their individual experimentation and research. The most significant event in the medication flavoring realm was the creation of firms such as FLAVORx, Inc., a firm dedicated to supporting flavoring choice for pediatric liquid medications in 1997. Many drug chains and numerous independent pharmacies now provide a medication flavoring service to their customers, yet according to representatives from FLAVORx, a small portion, just 3% of liquid medications, have a custom flavor added.

REVIEW OF THE LITERATURE

While there is limited literature available, reports and anecdotal articles indicate that prescription drug flavoring is not limited to pediatric medications, but may be beneficial for adult liquid medications, as well as for seniors and the very ill who may not be able to swallow very effectively. In addition to the aesthetics, pediatric medication flavoring has the possibility to assist in enhancing patient medication compliance, thereby improving clinical outcomes, and reducing healthcare system costs with the avoided need for further (usually costly) treatment of non-compliant patients.

The impact of taste on compliance was demonstrated by El-Chaar, Mardy, Wehlu et al³ in 1996. These findings have been confirmed by others in different studies in diverse areas. Steele⁴ and his colleagues confirmed these findings in 2001 by examining compliance with different antibiotic pediatric suspensions. In a recent Canadian study, Lin and colleagues⁵ examined compliance with antiretroviral drugs for children. Again, palatability was found to be important. Others have reported in differing studies with similar results, that taste is key to successful use of medications by children.⁶⁻⁹ Apparently, flavoring alone does not guarantee pediatric patient acceptance. Dagan et al,¹⁰ Bagueley et al,¹¹ and Jaderlund¹² have reported different acceptance of various pediatric liquid medications. Children express varying preferences for medication flavors. This result opens the door to potential compliance and customer satisfaction improvements with the ability of the dispensing pharmacist to custom-flavor medications already flavored at the factory.

STUDY METHODOLOGY

In order to gain insight into the prescription medication flavoring space, a two-part study was conducted.

The first part is a custom pharmacy customer intercept study that was used to collect current opinions and attitudes regarding willingness to pay for flavoring, consumer patronage and pharmacy spending among other related factors. The survey was a 14 question, multiple choice instrument that was administered in person by pharmacy students among 200 moms waiting for childrens' prescription medication in 10 different chain and independent community pharmacies in the urban and suburban areas of Philadelphia and New Jersey. The surveys were administered anonymously during March and April, 2012. Completion of the instrument required less than 5 minutes and all completed questionnaires were collected before the respondent left the pharmacy. Approximately 12 moms declined to complete the questionnaire. Reasons given were time constraints, difficulty with English language and privacy concerns.

The second part of the study referenced existing WilsonRx Pharmacy Customer Satisfaction Survey Data¹⁴. The WilsonRx survey is an 8 page paper survey which identifies and measures pharmacy customer perceptions of their pharmacy, health insurance, pharmacy benefit manager, and medical treatment for more than 50 conditions. The sample is 34,454 pharmacy customers from a survey mailed to 71,015 primary US household healthcare shoppers or decision makers in a nationally representative sample. Topics covered included, among others; pharmacy utilization, prescriptions filled, Rx and OTC purchases, satisfaction, co-pays, store attributes, counseling, delivery, trust level, etc.

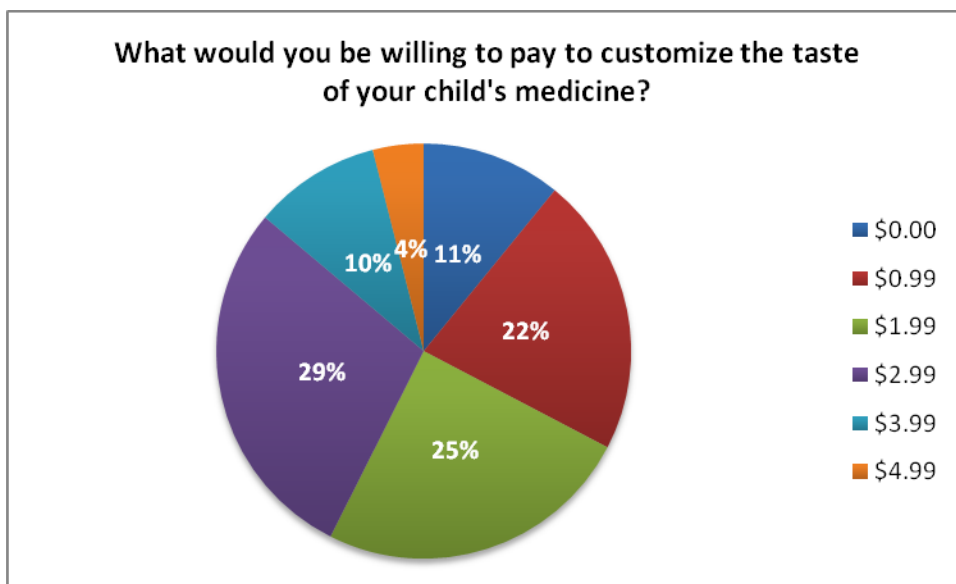
FINDINGS

About 85% of the interviewed subjects in the intercept survey said that the taste of liquid medicine is very or somewhat important to them and to their child. Overall, 79% of children complained about bad tasting medication or taste that is "too yucky" to take. Seven out of ten (70%) mothers surveyed filled 4 or more prescriptions per year – with the average respondent filling 4.3 prescriptions per year for their children.

To quantify the market for a custom medication flavoring service, we asked moms: "Would you prefer to choose how your child's medicine tastes or have the medicine come pre-flavored just one way?" 38% answered that they would prefer to choose the flavor, while 62% indicated that they are fine with one flavor that they did not select,

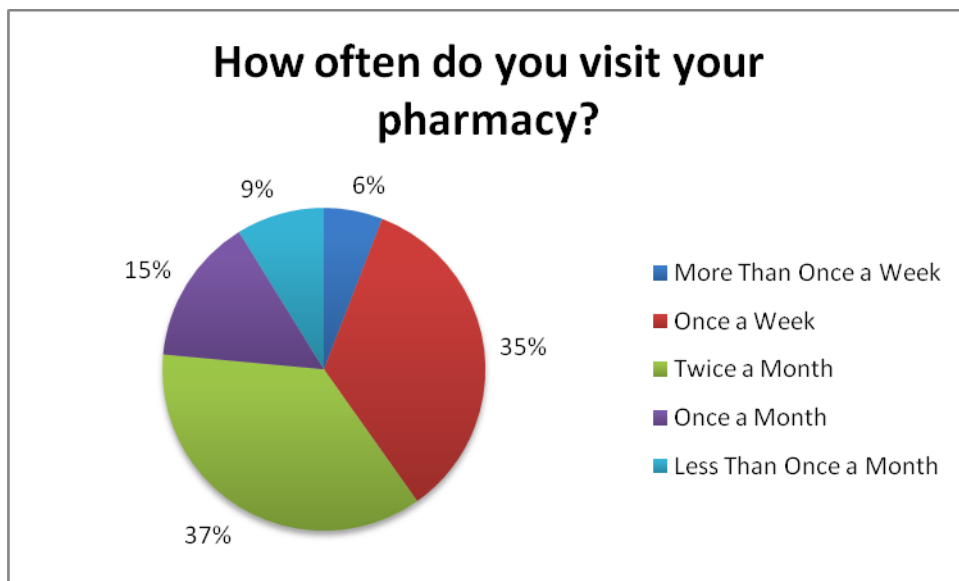
and one percent of respondents declared that it depended on whether there was a cost involved for custom flavoring. However, according to data supplied by FLAVORx, today just 3% of flavorable liquid medications actually have flavoring added. Based upon this data, there appears to be a significant opportunity to flavor a higher percentage of children's medications than are currently being flavored by pharmacy retailers. This is especially important when you consider that, when asked how likely they are to get a medication custom-flavored upon a pharmacist's recommendation, over 97% of moms indicated that they would be likely to do so. For pharmacy retailers, this data would suggest they could reasonably expect to custom-flavor close to 40% of the medications they dispense. If pharmacists and technicians are consistently recommending the service, the expectation should be even higher.

In response to the question "How much would you be willing to pay to customize the taste of your child's medicine to his or her favorite flavor?" the answers were:

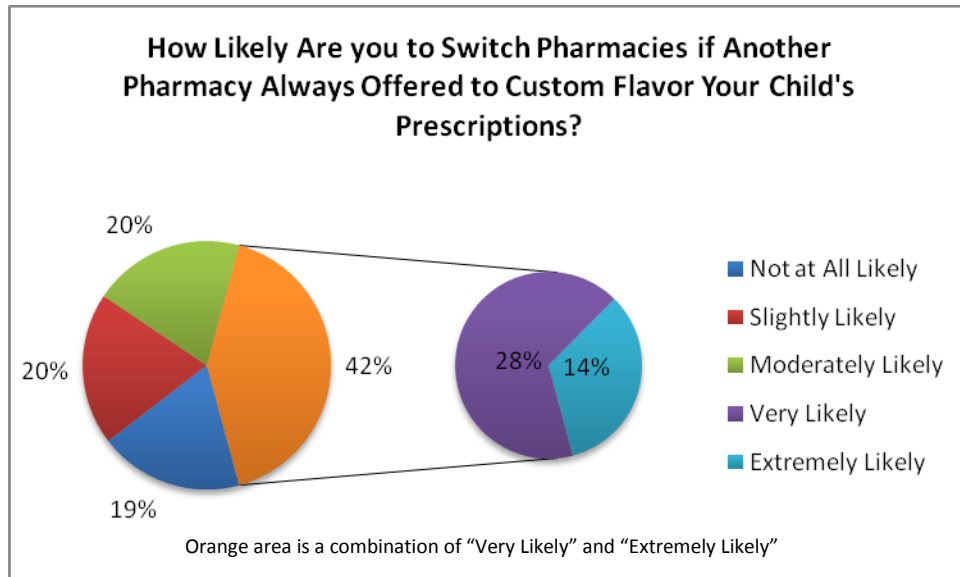


As may be seen, 54% percent of respondents chose the \$1.99 to \$2.99 range, with another 14% saying a fee of greater than \$2.99 would be acceptable.

Respondents were asked, "In a typical month, how often do you visit your pharmacy?" It was surprising to learn that more than 50% visited their pharmacy two to four times per month. For a pharmacy retailer, this further demonstrates the value of attracting and retaining moms/families as customers. The actual responses follow:

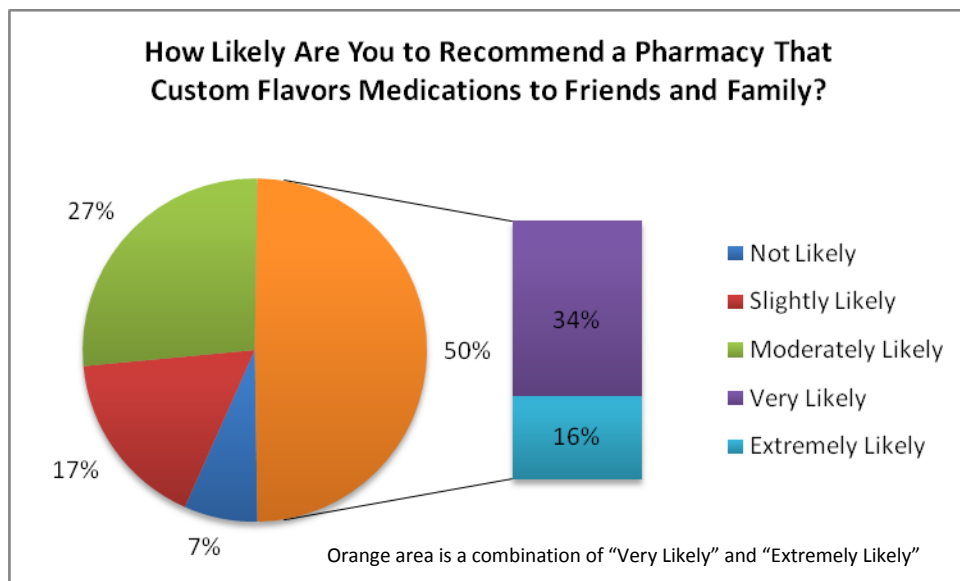


One of the biggest surprises came when we asked “How likely would you be to switch pharmacies if another pharmacy *always offered* to custom flavor your child’s prescriptions and your current pharmacy did not offer this service?”



As may be seen, 42% indicated a strong likeliness to take their business to a pharmacy that always offered the custom-flavoring service. The implications to a pharmacy retailer of such attitudes amongst mothers are tremendous from a business growth standpoint and a customer retention standpoint. It is important to note here the distinction between simply having the service available in the pharmacy, and always offering the service when the opportunity arises.

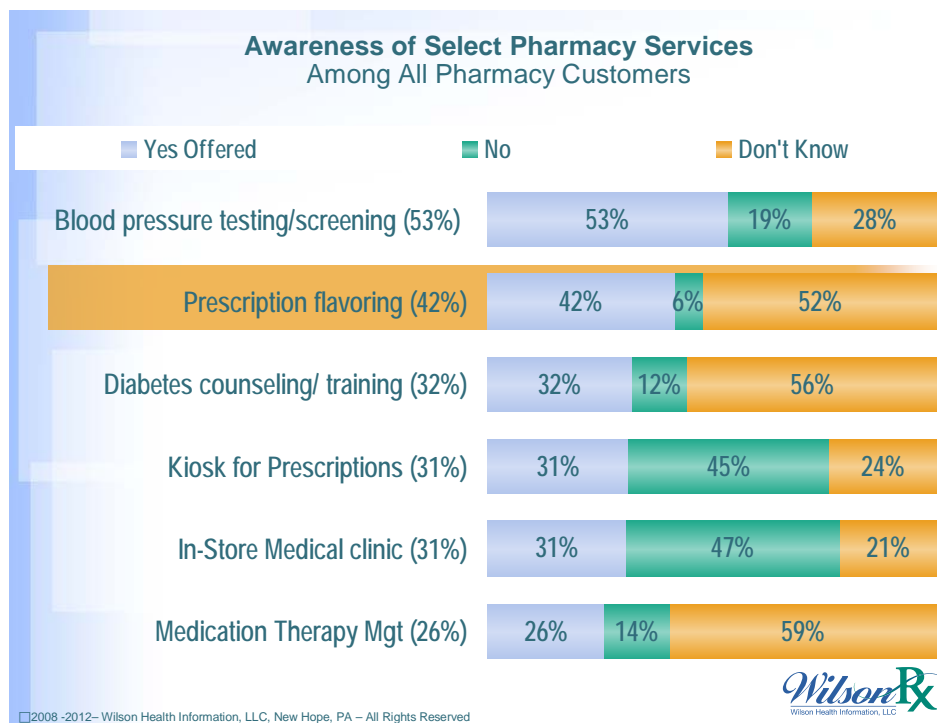
To quantify the word-of-mouth potential of custom-flavoring, we asked moms, “If a pharmacy allowed you to choose how your children’s medications taste, how likely are you to recommend that pharmacy to friends or neighbors to have their prescriptions filled?”



Answers to this question are telling in the value patients place on flavoring availability and the “talkability” of the service amongst moms in both their physical and online communities.

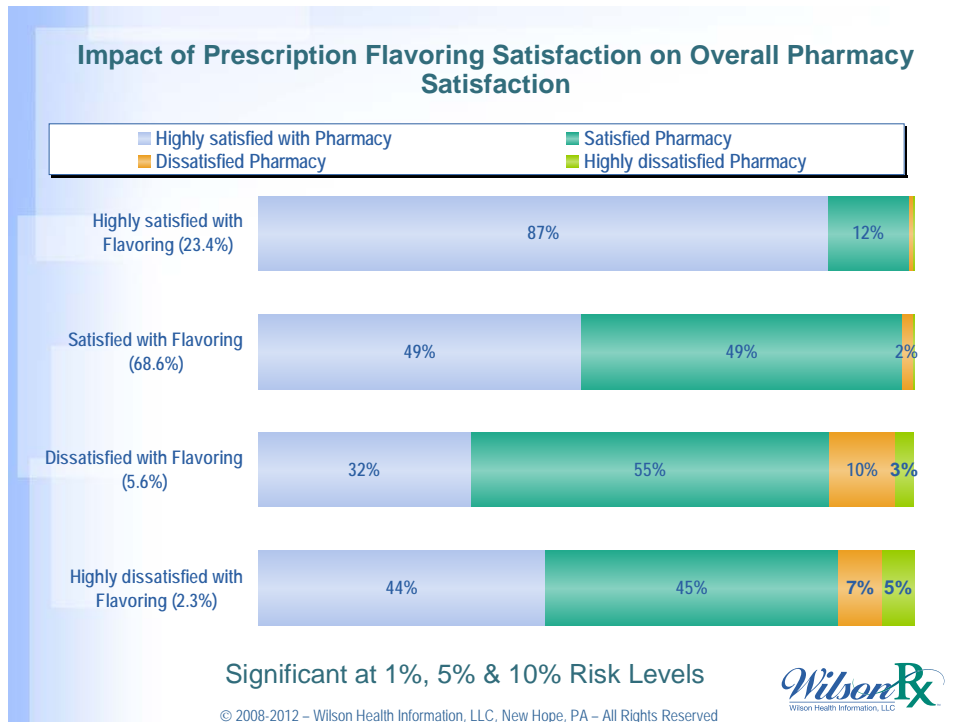
Part B

Nationally, the majority of pharmacy customers responding to the WilsonRx Pharmacy Satisfaction Survey did not know that their pharmacy offered prescription flavoring. Forty-two percent (42%) said that their pharmacy offered the service and six percent (6%) said their pharmacy did not offer flavoring. According to the US Census, in 2008, about 35.7 million families (46%) had children under 18 at home. Therefore, it is important to target those pharmacy customers filling liquid medications who have children under 18 at home when offering prescription flavoring services, particularly when filling a new prescription for the first time.

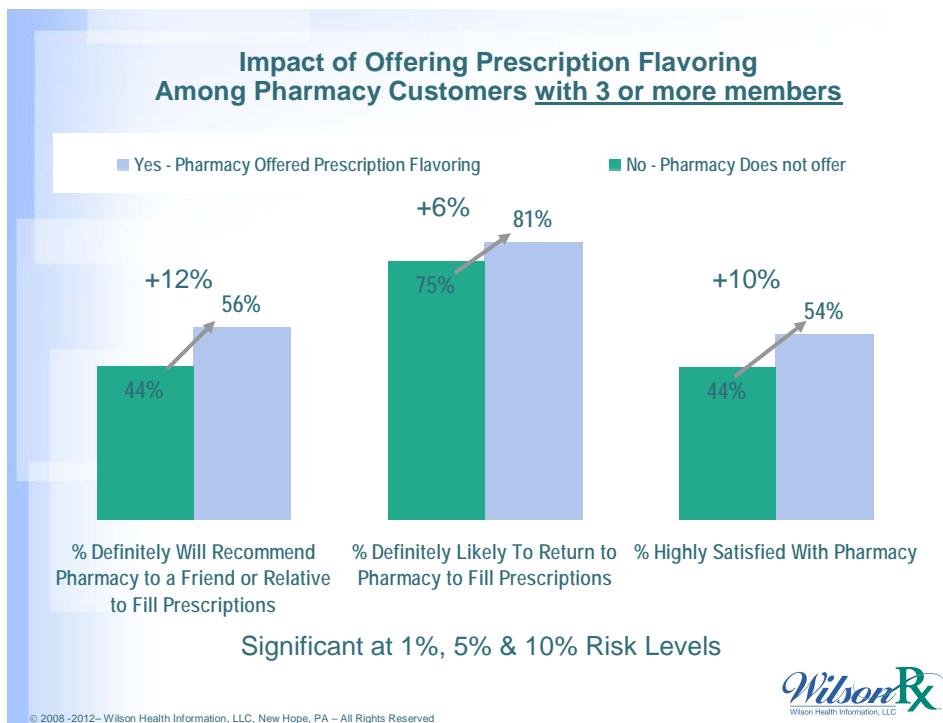


Among select pharmacy services, Blood Pressure Testing is most commonly mentioned as being offered by 53% of pharmacy customers, followed by prescription flavoring (42%), diabetes counseling (32%), prescription drop off/pick up kiosk (31%), in-store medical clinic (31%) and medication therapy management (26%). Fifty-two percent did not know their pharmacy offered prescription flavoring.

Among the selected services, satisfaction with prescription flavoring is fairly high with room for improvement with 23% reporting being highly satisfied, 69% satisfied and 8% dissatisfied. Satisfaction with blood pressure testing was slightly higher with 27% highly satisfied. Prescription flavoring awareness is highest among Chain Drug store customers (48%), followed by Food Store (46%), Mass Merchant (45%) and Independent pharmacy customers (43%). Awareness is lowest among clinic pharmacy customers (34%) and as expected, Mail/Online Pharmacy Customers (29%). Satisfaction is highest among Independent pharmacy customers with 34% reporting being highly satisfied, followed by Food Store (24%), Clinic (23%), Chain Drug (22%) and Mass Merchant pharmacy customers (22%). Young parents are the most highly satisfied with flavoring (31%), followed by young singles (27%), and young couples (26%).



Among pharmacy customers who used and rated prescription flavoring services, the impact of satisfying customers who are aware of and use prescription flavoring is significant. This means that a customer who is highly satisfied with prescription flavoring (among those who used the service) is significantly more likely to be highly satisfied with their pharmacy overall (87% Highly Satisfied) versus being simply satisfied or dissatisfied.



Pharmacy customers with households of 3 or more who reported that their pharmacy offered prescription flavoring are 23% more likely to be highly satisfied with their pharmacy (56% vs. 44%), 8% more likely to definitely return to


the pharmacy to fill prescriptions (81% vs. 75%), and 28% more likely to definitely recommend their pharmacy to a friend or relative to have their prescription filled (54% vs. 44%) versus those customers who reported that their pharmacy did not offer prescription flavoring.

When asked about the last medication filled or purchased at the pharmacy, the majority reported that they received a refilled prescription versus a new prescription. Since new prescriptions represent the best opportunity to offer prescription flavoring, targeting or flagging specific prescriptions, particularly among children’s liquid medications being filled for the first time, means that pharmacists can spend their time most efficiently targeting specific patient populations as opposed to trying to offer flavoring to every single customer. It may be helpful for pharmacy operators to incorporate flags into their computer systems which can flag for pediatric prescription medications with flavoring potential. For refilled flavored prescriptions, it is important for the pharmacy to also document which flavor the child requested and keep track of this information in the patient profile.

Respondents who were aware that their pharmacy offered prescription flavoring reported filling an average of 4.5 new prescriptions and 22.3 refilled prescriptions in the past year. More respondents reported filling 1-2 new prescriptions (34%) and virtually all reporting refilling at least one prescription in the past year (96%). Households with three or more members reported an average of 5.2 new prescriptions and 25.7 refills. Households who were highly satisfied with their prescription flavoring reported even higher numbers of new prescriptions 5.9 and 29.9 refills. These numbers clearly illustrate the importance of not only offering prescription flavoring services, but by providing a highly satisfying flavoring experience especially among customer households with three or more members.

Prescription Flavoring Value Impact Summary

Value	All Households	3 or More HH's	Highly Sat 3+
New Rxs	4.5	5.2	5.9
Refills	22.3	25.7	29.9
Total Rxs	24.1	28.4	32.8
Diff Meds	8.6	9.5	10.6
Annual Rx\$	\$2,412	\$2,933	\$3,250
OTC/Non-Rx\$	\$288	\$302	\$340
Personal Care\$	\$336	\$354	\$393
Total Spend\$	\$3,108	\$3,589	\$3,983
Difference	-	+17.2%	+31.2%
Pharmacy visits	2.52	2.62	2.79


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The average respondent reported receiving 24 total prescriptions accounting for 8.6 different medicines in the past year. However, this number increases to 28.4 total prescriptions accounting for 9.5 different medications among households with 3 or more members. The numbers are even higher among those households who reported that they were highly satisfied with their prescription flavoring to a total of 32.8 total prescriptions that account for an average of 10.6 different medications.

Adjusted for inflation using Bureau of Labor Statistics data, and assuming that the typical co-pay is one-third the actual value of the prescription, the average pharmacy customer's value to a pharmacy is approximately \$3,200 per year, however, this figure varies significantly by type of pharmacy, location and store size among other factors. Therefore, each pharmacy customer that does not return to fill prescriptions takes a minimum of \$3,200, or more from that pharmacy. This figure does not include spending on food and grocery items and other non-healthcare related pharmacy sales (i.e., gifts, toys, sundry items, gasoline, etc.). Spending among households who reported that their pharmacy offered prescription flavoring services reported almost identical pharmacy spending. However, among those customers who reported being highly satisfied with their prescription flavoring experience, they reported an 8.7% increase in prescription spending, a 12.5% higher level of OTC purchases, and 10.9% higher personal care product purchases.

In summary, the WilsonRx data analysis shows that a pharmacy customer with three or more household members, who is highly satisfied with prescription flavoring, will be more highly satisfied with their pharmacy overall, more likely to definitely return to the pharmacy to fill prescriptions, and more likely to definitely recommend their pharmacy to a friend or relative to fill prescriptions. In this case, customer satisfaction perceptions also demonstrate an increase in pharmacy business in that a highly satisfied flavoring customer will fill more new prescriptions (+31%), refilled prescriptions (+34%), total prescriptions (+36%) & different medications (+23.2%), spend more on all items (+31.2%), including prescriptions (+35%) and visit the pharmacy more often (+10.7% more visits).

SUMMARY OF KEY FINDINGS:

Awareness of prescription flavoring availability was limited with only 48% of pharmacy customers aware of its availability. Similarly, awareness and satisfaction with custom-flavoring impacts overall pharmacy satisfaction, intent to return, and intent to recommend said pharmacy to friends or relatives to fill prescriptions. As with many things, it appears that the pharmacist's advice is trusted and followed when it comes to custom medication flavoring. On the financial side, the loss of a customer equates to a loss in terms of many factors, including but not limited to: customer prescription business, non-prescription and front-end store purchases, repeat visits, recommendations to potential new customers, and purchases of other products and services offered by that pharmacy (i.e., OTCs, sundries, toys, gifts, cards, gasoline, etc.).

Depending upon each store's average customer purchases, each pharmacy stands to lose that customer's business to other pharmacies who offer the products and services that better satisfy that customer's needs. Stated differently, a pharmacy has the opportunity to increase its sales for every new customer gained by offering custom medication flavoring.

Based on the information garnered from industry sources, roughly 3% of all custom-flavorable medications are currently being flavored in retail pharmacies. The information gathered in these two studies proves there is a larger, untapped market for this service. There is a clear opportunity for a pharmacy retailer to market a custom-flavoring solution to their customers and expect sizable returns in customer satisfaction, revenue, and new prescriptions.

Given these findings, we believe that a pharmacy that consistently promotes a custom flavoring service to moms with young kids will gain new business at the expense of its competitors who do not. Each customer who uses the service and is highly satisfied with that service will be worth at least \$3,200 per year in pharmacy business. If a pharmacy can gain an estimated 4 to 6 new customers per quarter, at a value of \$3,200 per customer, a single pharmacy operator would realize additional annual revenue of \$51,000 to \$78,000 attributable to the custom flavoring service alone. Conversely, a pharmacy that does not make an effort to inform their patrons and prospective customers about their custom flavoring service could lose customers and revenue in the same amounts.

The pediatric market size in the United States in 2012 comprises 76.1 million children ages 0 through 11 years¹⁴. Approximately 4 percent of 4 billion medications dispensed in the United States are flavorable liquid medications.

This means that approximately 160 million liquid prescriptions per year are candidates for custom medication flavoring. At a fee of \$2.99 per flavored medication, there is potential flavoring revenue alone of \$4.8 million for every 1% market share a pharmacy retailer enjoys. Coupled with the ability to attract and retain new business via custom-flavoring, it seems as though a pharmacy retailer would be remiss in not actively promoting a service that is so highly valued by parents.

CONCLUSIONS

In addition to the usual consumer choice drivers of price and convenience, a new and untapped service, that of pediatric liquid medication custom-flavoring, holds the possibility of generating higher patron satisfaction, more loyalty, and considerable revenue increases for pharmacy retailers. Not to mention the probability of enhancing clinical outcomes with the resulting healthcare cost savings due to higher pediatric compliance. Based on how underutilized the service currently appears to be in the market, there is a clear opportunity for today's pharmacy retailer to gain significant business by simply promoting a new, or perhaps, existing, service in their pharmacy. It would also seem reasonable for PBMs and insurers to consider paying for and promoting this service.

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