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ANALYSIS OF PHARMACY PRODUCT INFORMATION  
IN  
COMMUNITY PHARMACY NEWSPAPER ADVERTISEMENTS

BY  
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## TABLE OF CONTENTS

	<u>PAGE</u>
ACKNOWLEDGEMENTS.....	ii
TABLE OF CONTENTS.....	iii
LIST OF APPENDICES.....	vi
LIST OF TABLES.....	vii
LIST OF FIGURES.....	ix
ABSTRACT.....	x
<u>CHAPTER</u>	<u>PAGE</u>
1. INTRODUCTION.....	1
2. LITERATURE REVIEW.....	16
The Marketing Mix.....	16
The Marketing Mix: Products.....	17
The Marketing Mix: Promotions.....	19
Advertising Promotions.....	23
Attitude Toward The Ad.....	24
Fishbein's Model Of Attitude Formation.....	26
Attitude Toward The Ad: Theoretical Issues.....	28
Structural Model Of Attitude Toward The Ad Formation.....	30
Application To Pharmacy.....	34
3. OBJECTIVES AND RESEARCH HYPOTHESES.....	38
4. METHODS.....	42
Sample Design.....	42
Characterization Of Community Pharmacy Newspaper Advertisements.....	44
Data Collection Instrument Design.....	46
Ad Selection Criteria.....	48

<u>CHAPTER</u>	<u>PAGE</u>
Data Collection.....	50
Standardized Measures Of Ad Information.....	51
Data Analysis.....	54
Limitations.....	56
5. RESULTS.....	60
Characterization Of Advertisements.....	60
Comparisons Of Physical, Service And Combined Physical And Service Goods Advertisements Among Community Pharmacy Ad Sponsors.....	64
Physical Goods Advertisements Information....	75
Service Goods Advertisements Information....	77
Physical Goods Component Information Of Combined Physical And Service Goods Advertisements.....	77
Service Goods Component Information Of Combined Physical And Service Goods Advertisements.....	78
Summary Of Comparisons Of Physical, Service And Combined Physical And Service Goods Ads Among Community Pharmacy Newspaper Ad Sponsors.....	79
Physical, Service And Combined Physical And Service Goods Advertisements Comparisons.....	83
Price And Product Information Distribution...	83
Average Price, Product And Total Ad Information Scores.....	85
Comparisons Among Physical, Service And Combined Physical And Service Goods Ads Among Community Pharmacy Ad Sponsors: Revisited.....	88

<u>CHAPTER</u>	<u>PAGE</u>
6. DISCUSSION.....	91
Advertisement Information And Consumer Expertise Issues.....	91
Methodological Issues.....	95
7. SUMMARY AND RECOMMENDATIONS.....	100
SELECTED BIBLIOGRAPHY.....	107

## LIST OF APPENDICES

<u>APPENDIX</u>	<u>PAGE</u>
A (21 CFR 202.1) Prescription Drug Advertising Regulations.....	112
B (21 CFR 200.200) Prescription Drug Consumer Price Listing.....	117
C Representative Community Pharmacy Newspaper Ad.....	118
D Advertisement Information Classification.....	119
E Pharmacy Products Advertised.....	120
F Example Physical Goods Advertisement.....	121
G Example Service Goods Advertisement.....	122
H Example Combined Physical And Service Goods Advertisement.....	123
I Ad Information Profile.....	124
J Ad Analysis Score Sheet.....	125
K Sample Computations.....	126

## LIST OF TABLES

<u>TABLE</u>		<u>PAGE</u>
1	Distribution Of Ads Analyzed Across Nine Sponsors.....	62
2	Distribution Of Sponsors' Ads Across Physical, Service And Combined Physical And Service Goods Ads.....	63
3	Distribution Of Pharmacy Product Information Bits From 99 Ads Across Ad Sponsors.....	65
4	Distribution Of Physical, Service And Combined Physical And Service Goods Ads Within Pharmacy Ad Sponsors.....	66
5	Distribution Of Total Information Bits Across Price And Product Types Of Pharmacy Product Information Within Ads Of Sponsors.....	68
6	Distribution Of Price And Product Information Bits By Type Of Good Within Ads Of Sponsors....	70
7	Price, Product And Total Ad Information Scores Across Physical, Service And Combined Physical And Service Goods Ads Within Ads Of Sponsors.....	72
8	Average Price, Product And Total Ad Information Scores Across Physical, Service And Combined Physical And Service Goods Ads Within Ads Of Sponsors.....	76
9	Product To Price Information Ratios Across Physical, Service And Combined Physical And Service Goods Ads Within Ads, Of Sponsors.....	80

## LIST OF TABLES

<u>TABLE</u>		<u>PAGE</u>
10	Distribution Of Price, Product And Total Ad Information Bits Across Physical, Service And Combined Physical And Service Goods Ads For All Ads Analyzed.....	84
11	Grand Average Price, Product And Total Ad Information Scores Across Physical, Service And Combined Physical And Service Goods Ads For All Ads Analyzed.....	86

## LIST OF FIGURES

<u>FIGURE</u>		<u>PAGE</u>
1	COMMUNICATIONS PROCESS FOR PROMOTIONS MODEL....	21
2	MODIFIED STRUCTURAL MODEL OF ATTITUDE TOWARD THE AD FORMATION.....	32

**ABSTRACT**

Community pharmacy newspaper advertisements were studied. The first objective was to analyze advertisements by identifying types of pharmacy product information and classes of pharmacy products contained in ads, and by developing an ad classification system.

The second and third objectives were to develop and use a standard ad information profile to guide collection of pharmacy product information contained in ads. The fourth and fifth objectives were to develop standardized measures of pharmacy product information presented in ads and use them to characterize ads grouped by sponsor. The sixth objective was to group ads by type of ad and compare the volume and distribution of types of pharmacy product information among the three ad classes.

A census sample was collected of community pharmacy newspaper advertisements that appeared in Sunday and Wednesday editions of the two major daily newspapers in Madison, Wisconsin for the calendar year 1983. Of 105 free-standing insert and run-of-paper newspaper ads collected, 99 were included in the analysis.

Pharmacy product information was classified into two categories, price and product information. Two classes of

pharmacy products were advertised, physical and service goods. Based on classes of products in ads, three classes of ads were identified; (1) physical goods, (2) service goods, and (3) combined physical and service goods ads.

A four-component standard ad information profile was developed and used to extract pharmacy product information from ads. Then, standardized measures of the information contained in ads were developed.

Ad price and product information composed price and product information scores for ad headlines, graphics and written texts. The price and product information scores were summed across ad headlines, graphics and written texts to yield price, product and total ad information scores for each ad.

Ads were grouped by sponsor and price, product and total ad information scores were computed within each class of ad for each sponsor. Ads then were grouped by ad class and grand average price, product and total ad information scores were computed and compared.

Price and product information accounted for 30.7% (n=666) and 69.3%(n=1506), respectively, of total ad information. There were nine sponsors of the 99 ads, of which 42.4%(n=42), 26.3%(n=26) and 31.3%(n=31) were for physical, service and combined physical and service goods

ads, respectively.

Of the most frequent ad sponsors, three most often sponsored physical goods ads. For one of these ad sponsors, the most total ad information was contained in combined physical and service goods ads. For four of the most frequent ad sponsors, physical goods ads contained more price information than was contained in their other ads.

Based on grand averages, combined physical and service goods ads contained the most total ad information while service goods ads contained the least. On average, physical goods ads contained about 1.6 times as much product as price information. On average, service goods ads contained about 7.4 times as much product as price information. On average, combined physical and service goods ads contained about 2.7 times as much product as price information.

The results of this study could be applied to the development of simulated ads. Then, such ads could be used to study consumer attitudes toward community pharmacy newspaper ads.

## CHAPTER 1

### INTRODUCTION

The marketing mix elements--product, price, place and promotion--are the major environmental stimuli marketers use to affect consumer cognitions and behaviors(1). One important promotional tool, advertising, has received considerable attention from marketers. Since advertising costs have increased at a rate greater than inflation over the last twenty years, marketers are directing more attention to the communication effectiveness of their advertisements(2).

There are a variety of forms of advertising that occur

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<sup>1</sup>J. Paul Peter and Jerry C. Olson, Consumer Behavior: Marketing Strategy Perspectives (Homewood, IL: Richard D. Irwin, Inc.) 1987, p.394.

<sup>2</sup>Scott B. MacKenzie and Richard J. Lutz, "An Empirical Examination of the Structural Antecedents of Attitude Toward the Ad in an Advertising Pretesting Context," Journal of Marketing 53 (April 1989):48-65.

within the channel of distribution of pharmaceuticals(3). One form encompasses advertising of pharmaceuticals by manufacturers directed toward pharmacist and physician providers. An example of such advertising is pharmaceutical advertisements placed in professional pharmacy and medical journals. Another form of advertising, called Direct to Consumer(DTC) advertising, originating from pharmaceutical manufacturers and directed to consumers(patients), has emerged in the last ten years(4). An example of DTC advertising is Upjohn's television advertisements for Rogaine.

The third form of advertising originates from providers, primarily pharmacists, and is directed toward consumers(patients). Community pharmacy newspaper advertisements for pharmacy products are examples of this type of advertising.

Title 21 Code of Federal Regulations Part 202.1 (21 CFR 202.1) contains the Food and Drug Administration's

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<sup>3</sup>Dev S. Pathak, "Introduction to Pharmaceutical Marketing," in Principles of Pharmaceutical Marketing M. C. Smith, ed. (Philadelphia, PA: Lee & Febiger) 1983, p.5-17.

<sup>4</sup>Sana Siwolop, "Trench Warfare: Selling Pharmaceuticals Used to be Simple and Neat: No More." Financial World (May 1989):78-80.

regulations for prescription pharmaceutical advertising by pharmaceutical manufacturers(Appendix A)(5). In addition, Title 21 Code of Federal Regulations Part 200.200 (21 CFR 200.200) contains the Food and Drug Administration's regulations for pharmaceutical advertising by community pharmacies(6). These regulations cover the types of information in a prescription pharmaceutical advertisement and the format in which it must be presented. Some states have additional regulations on the advertising of prescription pharmaceuticals (Wisconsin Pharmacy Examining Board, Phar 10.03 (15))(7). The regulation of prescription pharmaceutical advertising is more stringent than that of most other types of consumer products.

Until approximately 1980, promotion of prescription pharmaceuticals by pharmaceutical manufacturers was primarily via journal advertisements, direct mail and professional service representatives contacting

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<sup>5</sup>"Prescription Drug Advertising." Code of Federal Regulations Title 21, Part 202.1, Washington, DC: US Government, Revised as of April 1, 1989:56-65.

<sup>6</sup>"Prescription Drug Consumer Price Listing," Code of Federal Regulations Title 21, Part 200.200, Washington, DC: US Government, Revised as of April 1, 1989:8-9.

<sup>7</sup>Wisconsin Administrative Code, Phar 10.03 (15), Register, January, 1983, No. 325.

pharmacists and physicians(8). Prior to 1980, pharmaceutical manufacturers were reluctant to incorporate consumer advertising into their promotional mix(9). One congressional report showed that of 32 pharmaceutical manufacturers surveyed, three openly were in favor of using direct-to-consumer(DTC) product advertisements, 24 were in favor only of limited use of DTC advertisements, and five were undecided(10).

However, pharmaceutical manufacturers' opinions toward consumer advertising appear to be changing. For such pharmaceuticals as Syntex's Naprosyn, Merck, Sharp & Dohme's Pneumovax and Boots' Rufen, DTC advertising has been shown to increase patient awareness of pharmaceuticals(11). Increased patient awareness can lead to patients asking their physician about a particular pharmaceutical and this can lead to increased physician

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<sup>8</sup>Siwolop, p.78.

<sup>9</sup>Matthew Perri and Arthur Nelson, "An Explanatory Analysis of Consumer Recognition of Direct-To-Consumer Advertising of Prescription Medications," Journal of Health Care Marketing 7 (1987):9-17.

<sup>10</sup>John Covert, ed., "Congressional Report Advises Against Prescription Drug Advertising to Consumers," American Pharmacy 25 (January 1985):18.

<sup>11</sup>A. Rosen, "A New Kind of Opportunity," Advertising Age 53 (September 1982):Magazine Section.

prescribing of the pharmaceutical(12). DTC advertising, a manufacturer to consumer(patient) form of advertising, also may cause changes in the manufacturer to provider form of advertising, particularly for physician providers. Increasing physician awareness of pharmaceuticals is a major goal of the manufacturer to provider form of promotion. Since providers are exposed to DTC advertising, just as are consumers, this form of advertising can serve to increase both consumer and provider awareness of pharmaceuticals(13). A shift of budgeted promotion expenditures from the manufacturer to provider to the manufacturer to consumer(patient) form of advertising may result if DTC advertising proves to be a more cost-effective method of increasing awareness of pharmaceuticals.

There are some forces causing changes to occur in the advertising of prescription pharmaceuticals. First, with the escalation of health care expenditures, people are taking a more active decision-making role in their

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<sup>12</sup>Josephine Kasteler, Robert L. Kane, Donna M. Olsen and Constance Thetford, "Issues Underlying the Prevalence of 'Doctor Shopping' Behavior," Journal of Health Care Marketing 7 (1987):33-40.

<sup>13</sup>Perri and Nelson, p.10.

consumption of health care products and services through such measures as seeking a second opinion or questioning their health care provider for more information(14). Consumers want and believe they have a right to receive more information about their health conditions, medical treatments, and prescription therapies(15). Advertising of prescription pharmaceuticals directed towards consumers is one method of providing consumers with information(16).

Second, competition among pharmaceutical manufacturers has made advertising of prescription pharmaceuticals to consumers a potentially useful method of gaining or maintaining market share. According to one market analyst, first year launch budgets for pharmaceuticals in particularly competitive therapeutic categories have nearly doubled over the last few years(17). Advertising

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<sup>14</sup>Norman V. Carroll, Matthew Perri, Eve Evalan, Jeffrey A. Kotzan and Jack E. Fincham, "Estimating Demand For Health Information: Pharmacy Counseling Services," Journal of Health Care Marketing 7 (1987):33-40

<sup>15</sup>John G. Zimmermann, "Are You Ready to Market to Patients?" Medical Marketing and Media 18 (October 1983):23-31.

<sup>16</sup>The CBS Consumer Model, A Study of Attitudes, Concerns and Information Needs for Prescription Drugs and Related Illnesses (New York: CBS Television Network Sales/Marketing Services), June 1981.

<sup>17</sup>Siwolop, p.79

to consumers may be a growing component of launch budgets.

Third, new methods of promoting prescription pharmaceuticals such as joint marketing, co-marketing, co-promotion, video press releases, peer group influence marketing, and DTC advertising are providing new challenges to the regulation of prescription pharmaceutical advertising(18).

These forces of change, consumer demand for more information, increased competition within the pharmaceutical industry, and new promotion methods, will affect FDA regulations governing prescription pharmaceutical advertising. Thus, pharmaceutical manufacturers' advertising to providers and consumers (patients) raises queries about such professional issues as the potential for consumer misinformation(19), inappropriate prescribing by physicians(20,21), and

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<sup>18</sup>Ibid, p.79.

<sup>19</sup>Lisa Krieger, "Prescribers' Pens Are Targets of Ads for the Public," Medical World News 24 (January 1983):59-63.

<sup>20</sup>Kirk R. Schueler, "Direct-To-Consumer Promotion," Journal of Pharmaceutical Marketing and Management 1 (2) (Winter 1986):57-65.

<sup>21</sup>Alison Masson and Paul H. Rubin, "Matching Prescription Drugs and Consumers," New England Journal of Medicine 313 (August 1985):513-515.

trivialization of prescription pharmaceutical use(22,23).

Other professional and regulatory issues about pharmaceutical manufacturers' advertising of prescription pharmaceuticals include: (1) Will ads be informational or promotional? (2) Who will regulate ad content? and (3) Will ad content analysis include an examination of the appropriateness by which the attitude toward the ad construct is used(24)?

Consumer demand for more information, increased competition within the pharmaceutical industry, and new promotion methods also will affect the balance of the marketing mix elements for pharmaceutical manufacturers. With increased emphasis on prescription advertising as a promotional tool, promotion may assume greater importance among the marketing mix elements. There likely also will be changes in fundamental issues of product marketing-for instance, as it relates to image management.

Marketing has been called image management because it

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<sup>22</sup>Nick Mastroni, "The Industry is Tuning Out on Direct-To-Consumer Advertising," Medical Marketing and Media 19 (July 1984):13-22.

<sup>23</sup>M. Novitch, "Direct-To-Consumer Advertising of Prescription Drugs," Food Drug Cosmetic Law Journal 39 (March 1984):306-311.

<sup>24</sup>Perri and Nelson, p.11.

is the management of the marketing mix elements that tells the consumer who the firm is and what it has to offer. On the level of products, management of the marketing mix elements is used to develop product images. If advertising of prescription pharmaceuticals grows in importance, pharmaceutical manufacturers will need to develop new image management skills. Advertising may change the method of prescription pharmaceuticals marketing to something similar to other consumer products. If so, other consumer product issues such as advertising also may apply to prescription pharmaceuticals.

It is helpful to envision the process of image management through the channel of distribution from the manufacturer to the community pharmacy, and ultimately to the consumer(patient), in the same manner as the distribution of prescription pharmaceuticals. Throughout the channel, effort is made to help ensure and protect the integrity and quality of the product. This process benefits all members of the channel, including consumers. Similar efforts directed toward helping to ensure the integrity and quality of the market images also should benefit channel members.

To begin to develop market images of products and providers of products that are consistent throughout the

entire channel of distribution, it is necessary to examine all forms of advertising. Most of the attention focused on prescription pharmaceutical advertising has addressed regulatory and product marketing issues of the manufacturer to provider and manufacturer to consumer(patient) forms of advertising. However, little attention has focused on the extension of these issues to the provider(pharmacist) to consumer(patient) form of advertising.

Before proceeding, clarification is needed on the information content of the three forms of advertising discussed earlier. The information content of the manufacturer to provider and manufacturer to patient forms of advertising is prescription pharmaceuticals. Prescription pharmaceuticals also are an important component of the information content of advertising of the provider to patient form of advertising.

However, the information content of the provider to patient form of advertising also includes nonprescription pharmaceuticals, pharmacy services and other consumer goods. Throughout this report, the term pharmacy products will be used in reference to all of the products available in a traditional community pharmacy. Attempts to develop consistent market images by all members of a channel of

distribution could impact the manner by which nonprescription pharmaceuticals, pharmacy services and other consumer goods are promoted.

For instance, consider a channel of distribution of a prescription pharmaceutical whose members have agreed on advertising that is informational, rather than promotional, in nature. For the provider to patient form of advertising, that means the information content about the prescription pharmaceutical presented in a community pharmacy newspaper advertisement will be informational in nature.

Suppose the same community pharmacy newspaper advertisement contains professional services information. If these services are presented in an informational manner, that could strengthen the overall informational nature of the entire advertisement. Conversely, if these professional services are presented in a promotional manner, that could conflict with the informational nature of the information presented about the pharmaceutical.

Implications of the regulatory and product marketing issues noted above extended to the community pharmacy form of advertising(provider to consumer(patient)) will affect the image of pharmacy products, the image of pharmacists, the image of community pharmacies, and the image of

pharmaceutical manufacturers. Effective management of community pharmacy newspaper advertisements could be used in the management of pharmacy image.

What is known now about the characteristics of community pharmacy newspaper advertisements? Based on the author's observations, community pharmacies sponsor advertisements in newspapers that appear as free-standing supplements and as ads placed directly in a newspaper among news articles and other ads. These ads contain information about pharmacy products (prescription pharmaceuticals, pharmacy services, nonprescription pharmaceuticals, and a wide array of consumer products). The arrangements of the products in these ads vary widely. For instance, some ads contain prescription pharmaceutical information among information about non-health care related products, such as garden supplies. Other ads are partitioned into distinct sections, such as in free-standing supplements with health care related products on one page and such items as photo processing services on another. Finally, other ads contain prescription pharmaceutical and pharmacy services information in a stand alone ad placed directly in a newspaper page.

Furthermore, community pharmacy newspaper ads likely are a major source of consumer information about pharmacy

and pharmacy products. Consequently, more needs to be known about this information in order better to understand consumer cognitions and behaviors as they relate to pharmacy and pharmacy products.

During the last decade, marketers have become increasingly interested in consumer evaluations of ads. A growing body of research suggests consumers form attitudes toward advertisements and that these attitudes can influence consumer attitudes toward products, brands, and advertisers and purchase intentions(25-30).

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<sup>25</sup>Andrew A. Mitchell and Jerry C. Olson, "Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitude?" Journal of Marketing Research 18 (August 1981):318-332.

<sup>26</sup>Terence A. Shimp, "Attitude Toward the Ad as a Mediator of Consumer Brand Preference," Journal of Advertising 10 (2) (1981):9-15.

<sup>27</sup>Meryl P. Gardner, "Does Attitude Toward the Ad Affect Brand Attitude Under a Brand Evaluation Set?" Journal of Marketing Research 22 (May 1985):192-298.

<sup>28</sup>Scott B. MacKenzie, Richard J. Lutz and George E. Belch, "The Role of Attitude Toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations," Journal of Marketing Research 23 (May 1986):130-143.

<sup>29</sup>Manoj Hastak and Jerry C. Olson, "Assessing the Role of Brand-Related Cognitive Responses as Mediators of Communication Effects on Cognitive Structure," Journal of Consumer Research 15 (March 1989):444-456.

<sup>30</sup>MacKenzie and Lutz, p.49.

Consumer attitude toward an ad can be defined as a predisposition to respond in a favorable or unfavorable manner to a particular advertisement(31). While this construct has been studied in the context of such consumer products as facial tissues, toothpaste, shampoo, soft drinks and automobiles, this researcher found no published studies in the context of prescription or nonprescription pharmaceuticals.

In much of consumer attitude toward the ad research, simulated advertisements were created for products for which most consumers had little prior brand knowledge, preference or usage experience. These simulated advertisements have been developed on a framework of an ad headline, some type of graphics, and written text (32,33,34). Then, through various experimental treatment conditions, subjects were exposed to the simulated advertisements. Following exposure, subjects completed some form of questionnaire through which their attitudes were measured.

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<sup>31</sup>Ibid, p.49.

<sup>32</sup>Ibid.

<sup>33</sup>Gardner, p.194.

<sup>34</sup>Mitchell and Olson, p.321.

In order to study attitude toward the ad in the context of newspaper advertisements sponsored by community pharmacies (the provider-consumer (patient) form of advertising), representative simulated pharmacy ads need to be developed. Before these simulated ads can be developed, more needs to be learned about newspaper ads sponsored by community pharmacies. Therefore, a systematic analysis of the pharmacy product information contained in community pharmacy sponsored newspaper advertisements will help categorize this information.

This work may be envisioned as the first of a three phase stream of research. Phase two could entail the development of simulated ads from the pharmacy product information analysis. Phase three could be experimental research which compares consumer attitudes toward physical, service, and combined physical and service good community pharmacy-sponsored newspaper ads in two contexts: (1) clutter ads, such as in a free-standing insert used by a national chain pharmacy; and (2) stand-alone ads, such as run-of-paper ads, used by a clinic pharmacy.

## CHAPTER 2

### LITERATURE REVIEW

#### The Marketing Mix

The American Marketing Association defines marketing as the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives(1). Marketing strategies consist of managerial decisions based on marketing logic designed to affect the probability or frequency of exchanges in order to achieve individual and organizational objectives(2,3). The mixture of marketing variables used by an organization to achieve its organizational objectives is called the marketing mix(4).

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<sup>1</sup>"AMA Board Approves New Marketing Definition," Marketing News (March 1, 1988):1.

<sup>2</sup>Philip Kotler, Marketing Management: Analysis, Planning and Control 5th ed. (Englewood Cliffs, NJ: Prentice-Hall, Inc.) 1984, p.68.

<sup>3</sup>Peter and Olson, p.394.

<sup>4</sup>Ibid, p.394.

McCarthy proposed a useful classification of these variables into four categories: product, price, place and promotion(5). These categories of variables, labelled the Four Ps in the current marketing literature, are the marketing mix elements used in marketing strategies.

Exchanges that satisfy individual objectives can be considered to satisfy individual wants and needs(6). For example, people need food, clothing and medical care but may want a steak, a new wool sweater or the name brand medication indicated for their illness. Through exchange processes, individuals obtain products which enable need and want satisfaction. Consequently, of the Four Ps, the product may be the most important element(7).

### **The Marketing Mix: Products**

Products include physical and service goods offered to a market to satisfy consumer wants and needs(8). Physical

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<sup>5</sup>E. Jerome McCarthy, Marketing Principles: A Managerial Approach 7th ed. (Homewood, IL: Richard D. Irwin, Inc.) 1981.

<sup>6</sup>Kotler, p.8-12.

<sup>7</sup>Mickey C. Smith, "Managing the Marketing Mix: Product, Price, Promotion and Position," Current Concepts in Retail Pharmacy Management 1 (Nov/Dec 1983):3-8.

<sup>8</sup>Kotler, p.406.

goods are tangible objects that meet certain standards of production(eg. quality or size standards); are produced and stored prior to consumption or use; and generally have a long channel of distribution(eg. manufacturer-wholesaler-provider-patient)(9,10,11). Examples of physical goods include a blood pressure meter and manufactured pharmaceuticals. Service goods are efforts which are usually people-based; are intangible; are produced and consumed when delivered; are not as standardized as physical goods; and have a short channel of distribution (provider-patient)(12,13,14). Examples of service goods include patient medication profile review by pharmacists and patient consultation.

The purpose of product classification schemes is to help identify important product characteristics which can

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<sup>9</sup>John M. Rathmell, "What is Meant By Services," Journal of Marketing 30 (October 1966):32-36.

<sup>10</sup>Ben M. Enis, Marketing Principles: The Management Process (Pacific Palisades, CA: Goodyear Publishing Co.) 1974, p.2-27.

<sup>11</sup>McCarthy, p.300-319.

<sup>12</sup>Rathmell, p.32-36.

<sup>13</sup>Enis, p.2-27

<sup>14</sup>McCarthy, p.300-319.

be used in developing marketing strategies. While this study focuses on the pharmacy product information presented in community pharmacy newspaper advertisements, it is recognized that more in-depth product classification schemes exist. For instance, another classification scheme is based on consumer purchase behaviors and categorizes such products as convenience, shopping, specialty and unsought goods(15,16,17).

#### **The Marketing Mix: Promotions**

The other marketing mix element of primary interest in this study is promotion. In a general sense, promotions are used by marketers to communicate to consumers and persuade them to purchase products(18). In a more specific sense, promotions are created and used by marketers to affect consumer cognitions and behaviors(19).

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<sup>15</sup>Kotler, p.465-467.

<sup>16</sup>Enis, p.2-27.

<sup>17</sup>McCarthy, p.302.

<sup>18</sup>Norman V. Carroll, "Marketing Survey in Franchise Pharmacy-A Profile," Current Concepts in Retail Pharmacy Management 2 (July/August 1984):13-16

<sup>19</sup>Peter and Olson, p.526.

The promotion mix consists of four major promotion tools: advertising, sales promotion, publicity, and personal selling(20,21). Through promotion strategies, marketers use these tools to communicate with consumers.

Peter and Olson adapted from Henry Assael a model of the communications process for promotions(22). This model, shown in Figure 1, is useful because it combines a communication process model with the relevant agents and stimuli and the important activities and decisions that occur at successive stages of the process. Applying this model to advertising communications begins in stage one with identifying the source of the communication; the community pharmacy in this study. The relevant agents might include the pharmacy owner or manager, pharmacists or salespeople. The key actions and decisions focus on managing the promotion strategy and involve analyzing consumer cognitions and behaviors relative to the pharmacy and its products, determining promotion objectives and then designing and implementing promotion strategies.

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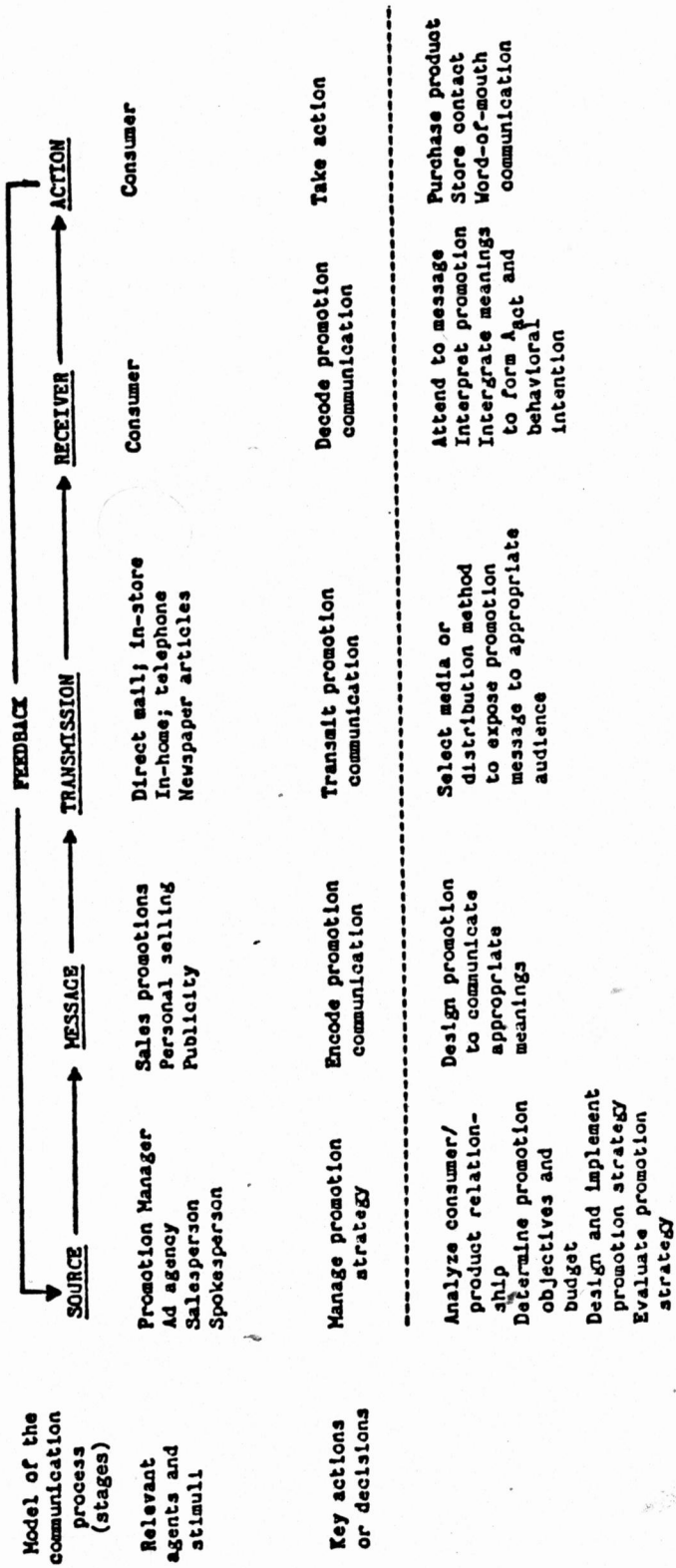
<sup>20</sup>Kotler, p.438-439.

<sup>21</sup>Harry A. Smith, "Promotion/Merchandising," in Principles and Methods of Pharmacy Management 3rd ed. (Philadelphia, PA: Lee & Febiger) 1986, p.359-380.

<sup>22</sup>Peter and Olson, p.537.

**FIGURE 1**

**COMMUNICATIONS PROCESS FOR PROMOTIONS MODEL**



Source: Peter and Olsen, p.537.

The second stage in the process is concerned with the message of the advertising communication. Here, the ad is the relevant stimulus. The key action is to encode the message so as to communicate the desired meaning to the audience.

The third stage is the transmission of the communication through newspapers, direct-mail fliers, in-house fliers or newspaper articles. The key action is to transmit the promotion communication and requires decisions on media or distribution methods which provide the message to the targeted audience. Stage four is concerned with the receiver of the message; the consumer or patient in this study. The key actions the consumer must undertake are to decode the communication through attending to the message, interpret it and integrate the message to form attitudes and behavioral intentions.

The fifth stage of the process focuses on the action desired of the consumer. This could include product purchase, pharmacy contact, or talking about the pharmacy with another consumer. Finally, a feedback loop between the action taken by the receiver of the message and the message source allows evaluation of the promotion strategy. For instance, counting the number of customers who made purchases could reveal if the promotion increased

pharmacy contact. This model provides a conceptual framework for the following discussion about advertising.

### **Advertising Promotions**

Advertising can be defined as paid, nonpersonal information about a product, brand, company or store(23). Since a considerable amount of advertising is designed to influence consumer images, beliefs and attitudes toward products, brands and behaviors, it has been called image management(24). The source, message and transmission stages of the model of the communication process for promotions serves as a framework for a discussion of advertising strategies. In the source stage, consumer cognitions and behaviors relative to a product are analyzed. The marketer must select the objective, need or benefit to be communicated in the advertisement. In the message stage, promotions must be developed to communicate the desired meaning to the consumer. Here decisions must be made on what product attributes are to be communicated via, for instance, the headline or written text of an ad. In the transmission stage, the vehicle, for instance a

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<sup>23</sup>Kotler, p.528.

<sup>24</sup>Peter and Olson, p.537.

newspaper, is chosen for exposing the message to the targeted audience.

The focus on consumer cognitive reactions toward advertisements has served as the basis for design and evaluation of ads. However, some marketers have begun to study consumer affective reactions towards advertisements. Researchers of the consumer affective reactions toward advertisements have added to the body of knowledge about advertising. In the next section, one addition to this body of knowledge, called attitude toward the ad, will be discussed.

#### **Attitude Toward The Ad**

Marketing research has been directed toward learning more about the process by which advertising communications affect consumer cognitions and behaviors. As more knowledge about the process has been acquired, and as advertising costs have increased more than inflation over the last twenty years, marketers have become increasingly interested in diagnostic pretesting of advertisements (25,26). MacKenzie, Lutz and Belch define diagnostic

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<sup>25</sup>MacKenzie and Lutz, p.48.

<sup>26</sup>MacKenzie, Lutz and Belch, p.130.

pretesting as a general class of pretesting methodologies whereby consumers first are exposed to a commercial stimulus, usually a printed advertisement, and then are asked to provide responses to a variety of questions designed to elicit their detailed reactions to the stimulus(27). The purpose of this pretesting is to determine if the ad is communicating effectively(28). Through such diagnostic pretesting methods as direct rating, portfolio and laboratory tests, marketers examine the impact on consumers of factors associated with ad content and execution to diagnose the reasons for successful or unsuccessful communications(29).

One important conceptual underpinning of the effect of advertising communications on consumers has to do with the effect of an ad on consumer attitudes. There are several definitions of attitude, but a useful one is provided by Peter and Olson: "An attitude is a person's overall evaluation toward some concept, which has traditionally been defined as objects and behaviors"(30). This means,

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<sup>27</sup>Ibid, p.130.

<sup>28</sup>Ibid.

<sup>29</sup>Kotler, p.655.

<sup>30</sup>Peter and Olson, p.191.

for instance, consumers form attitudes towards products, pharmacies and people as well as toward patronizing a pharmacy or purchasing a product. One important function of advertising is to affect consumer attitudes in such a way that they will, for instance, purchase a product. Consequently, considerable research has been directed toward learning more about how to develop ads in order to elicit the desired consumer attitudes.

#### **Fishbein's Model Of Attitude Formation**

An early guiding theoretical construct for the causes of attitudes was provided by Fishbein(31). Applied to an advertisement, the first step in the model proposes that an advertisement has effects on a consumer's beliefs. For instance, after seeing a community pharmacy newspaper advertisement introducing a new pharmacist available to answer health care questions, a consumer could form the belief that the pharmacy offers accessible health care service. The second step in the model proposes that beliefs formed about the concept of the advertisement are combined to form an overall evaluation or attitude about

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<sup>31</sup>Martin Fishbein, "An Investigation of the Relationships Between Beliefs About an Object and the Attitude Toward the Object," Human Relations 16 (1963):233-240.

the concept. For instance, if a consumer has seen other pharmacists in the pharmacy answering questions from other consumers and believes health care services probably are accessible in the pharmacy, and if the consumer values accessible health care services, a positive attitude could be formed toward the pharmacy. The third step in the Fishbein model proposes that the attitude formed by the consumer could lead him, in our example, to patronize the pharmacy for future health care needs.

The Fishbein model of attitude formation spurred marketers to apply this conceptual framework to studies of advertising effectiveness. One product of that research was greater insight into consumer cognitive and affective reactions towards advertisements. From studies on consumer affective reactions toward advertisements has come the construct called attitude toward the ad. Consumer attitude toward the ad can be defined as a predisposition to respond in a favorable or unfavorable manner to a particular advertisement(32). Several

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<sup>32</sup>Richard J. Lutz, "Affective and Cognitive Antecedents of Attitude Toward the Ad: A Conceptual Framework," in Psychological Processes and Advertising Effects: Theory, Research and Application L. F. Alwitt and A. A. Mitchell, eds. (Hillsdale, NJ: Lawrence Erlbaum Associates) 1985, p.45-63.

theoretical issues that have been examined in attitude toward the ad research are discussed in the next section.

### **Attitude Toward The Ad: Theoretical Issues**

In 1981, Shimp provided theoretical arguments and empirical evidence to suggest that consumer attitudes towards brands of products and their purchase intentions and behaviors are influenced by their attitudes toward ads(33). While literature dating back to 1929 reports that researchers believed attitude toward the ad mediates the effectiveness of advertising, Shimp's paper labelled the attitude toward the ad concept as a new concept in hopes of spurring "knowledge advancement" (34,35).

Mitchell and Olson tested the validity of the proposition of the Fishbein model that consumer beliefs about product attributes are the sole mediators of brand attitudes(36).

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<sup>33</sup>Shimp, p.9-15.

<sup>34</sup>Ibid.

<sup>35</sup>Alvin A. Silk and Terry G. Vavra, "The Influence of Advertising's Affective Qualities on Consumer Response;" in Buyer/Consumer Information Processing G. David Hughes and Michael L. Ray, eds. (Chapel Hill, NC:University of North Carolina Press) 1974, p.157-186.

<sup>36</sup>Mitchell and Olson, p.318-332.

By exposing subjects to advertisements containing either verbal or visual information it was shown that product attribute beliefs mediated attitude formation toward the products advertised. The researchers also found that product attribute beliefs were not the sole mediator of attitudes. Consumer attitudes toward ads were measured on seven five-point bipolar scales. Factor analysis of these measures yielded two factors with eigenvalues greater than one. Varimax rotation of the factors yielded four evaluative variables (good-bad, like-dislike, irritating-not irritating, and interesting-uninteresting) that loaded highly on the evaluative factor. The mean of the four evaluative variables was interpreted as attitude toward the ad. Regression and ANCOVA analyses showed that consumers' attitude toward the ad also mediated attitude formation toward products. Other measures have shown that attitude toward the brand and attitude toward the ad are separate constructs(37,38).

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<sup>37</sup>Andrew A. Mitchell, "The Effect of Verbal and Visual Components of Advertisements on Brand Attitudes and Attitude Toward the Advertisement," Journal of Consumer Research 13 (June 1986):12-24.

<sup>38</sup>C. Whan Park and S. Mark Young, "Consumer Response To Television Commercials: The Impact of Involvement and Background Music on Brand Attitude Formation," Journal of Marketing Research 23 (February 1986):11-24.

Other attitude toward the ad research has provided support for consumer attitude toward the ad having an effect on attitude toward the brand. Moore and Hutchinson showed this effect can occur during exposure to an ad and will have an affect that can last several days(39). Gardner found that attitude toward the ad affects attitude toward the brand as much under a brand as under a nonbrand evaluation set(40). Lutz, MacKenzie and Belch examined the impact of product class importance and knowledge on the relationship between attitudes toward the ad and the brand and found that attitude toward the ad has significant impact on attitude toward the brand(41).

#### **Structural Model Of Attitude Toward The Ad Formation**

A third area of attitude toward the ad research has been directed toward explaining the origins of this

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<sup>39</sup>Danny Moore and J. Wesley Hutchinson, "The Effects of Ad Affect on Advertising Effectiveness," in Advances in Consumer Research (10), R. Baggozi and A. Tybout eds. (Ann Arbor, MI: Assoc. for Consumer Research) 1983, p.526-531.

<sup>40</sup>Gardner, p.194-196.

<sup>41</sup>Richard J. Lutz, Scott B. MacKenzie and George E. Belch, "Attitude Toward the Ad as a Mediator of Advertising Effectiveness: Determinants and Consequences," in Advances in Consumer Research (10), R. Baggozi and A. Tybout eds. (Ann Arbor, MI: Association for Consumer Research) 1983, p.526-531.

attitude(42,43). The most recent model proposed to explain the framework underlying the attitude toward the ad construct is contained in Figure 2(44). While this theoretical framework largely is based on earlier research by MacKenzie and Lutz, it also has elements in common with Assael's model of the communications process for promotions, modified by Peter and Olson, that was discussed earlier.

Recall the modified Assael model consisted of a five-stage process: source of the communication, message, transmission, receiver and actions. The modified structural model of attitude toward the ad formation encompasses stages one through four. Source of the communications effects are captured indirectly in several variables, suggesting the need for advertisers to manage the variables in the model in order to manage their promotion strategy. Message effects are captured in message content(the information presented in advertisements), ad claim discrepancy and ad execution characteristics variables. Transmission of the message

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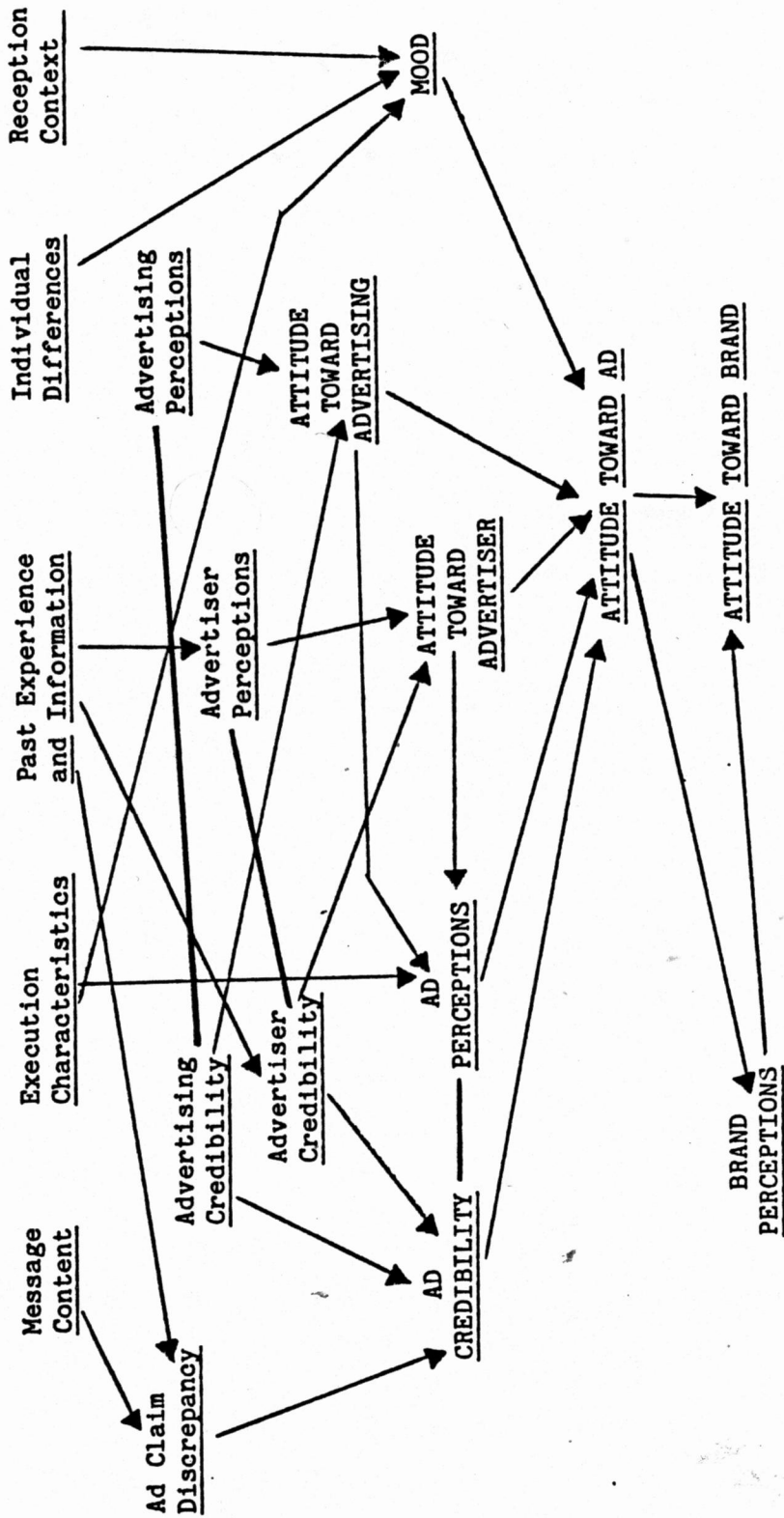
<sup>42</sup>MacKenzie and Lutz, p.48-65.

<sup>43</sup>MacKenzie, Lutz and Belch, p.130-143.

<sup>44</sup>MacKenzie and Lutz, p.53.

FIGURE 2

MODIFIED STRUCTURAL MODEL OF ATTITUDE TOWARD THE AD FORMATION



effects relates to advertiser credibility, advertising perceptions and attitude toward advertising. This is true in the sense that types of media and message distribution methods may affect consumer attitudes toward advertising in general. Receiver effects are captured in mood, individual differences and past experience and information variables. While this discussion does not seek to examine completely the commonalities between the modified Assael model and the modified structural model of attitude toward the ad formation, it does expose linkages that are useful in exhibiting the relationship between attitude formation and the communication effects of advertising.

The commonality between Fishbein's model of attitude formation and the modified structural model of attitude toward the ad formation might be understood best by viewing these two theoretical frameworks as existing along a spectrum. As more has been learned about attitude formation toward communications, greater explanatory power has been found in the modified structural model of attitude toward the ad formation. Consequently, the Fishbein model served as an earlier theoretical framework used to guide research. The modified structural model of attitude toward the ad formation has developed as a richer, more powerful framework for understanding attitude

formation in an advertising context.

### **Application To Pharmacy**

The modified structural model of attitude toward the ad formation serves as a useful guide in attempts to learn more about advertising of pharmacy products. It also suggests numerous areas of study on such topics as pharmacy ad execution characteristics and past consumer experience and information with, and about, pharmacy products and consequent effects on consumer attitudes toward pharmacy advertisements and products. This research focuses only on one part of the modified structural model of attitude toward the ad formation; message content. The message content of an ad consists of the information contained in the ad. In the remainder of this report, the message content of an ad will be referred to as the information contained in the ad. Shown in Figure 2 is the hypothesized causal relationships between the information contained in an ad and ad claim discrepancy. Ad claim discrepancy has been viewed as the primary determinant of ad credibility<sup>45</sup>. Specifically, if claims made about the brand in the ad message are

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<sup>45</sup>Lutz, MacKenzie and Belch, p.138.

inconsistent with the consumer's prior perceptions about the brand, the result could be a negative affect on the credibility of the ad(46). Further, ad credibility is causally related to attitude toward the ad, as in the case where the ad has low credibility, the consumer might be expected to form a negative attitude toward the ad. Continuing to follow through the model, a negative attitude toward the ad may lead, or contribute to, negative brand perceptions and attitudes.

Analysis of the information contained in community pharmacy newspaper advertisements could provide a foundation upon which further research could be undertaken to learn more about the variables of the modified structural model of attitude formation. For instance, while no studies were found by this author that examined the information presented in community pharmacy newspaper advertisements in the context of ad claim discrepancy for pharmacy ads, such work could provide a better understanding of ad credibility from the consumer's perspective. In addition, studying consumer attitudes toward community pharmacy newspaper advertisements could help provide a clearer understanding of how ads for

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<sup>46</sup>Ibid, p.138.

pharmacy products affect consumer attitudes toward these products. Again, no such published research was found.

As a preliminary step in examining the information presented in community pharmacy newspaper advertisements, it is necessary to be cognizant of the legal restrictions on pharmaceutical products and services advertising by community pharmacies. Title 21 Code of Federal Regulations Part 200.200 contains the Food and Drug Administration's (FDA's) regulations for prescription drug advertising by community pharmacies (Appendix B). In terms of community pharmacy newspaper advertisements, the focus of this study, these regulations restrict pharmacy product ad information presentations to prices and a few product features, such as package size and strength of the pharmaceutical.

Another factor to consider when analyzing the information contained in community pharmacy advertisements is the common representation of pharmacy products as shopping goods. This representation classifies pharmacy products based on a shopping goods buying behavior. This behavior focuses on price, quality and performance evaluations (47). Since claims about performance are

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<sup>47</sup>McCarthy, p.302.

prohibited by FDA regulations, the emphasis in pharmacy advertisements is narrowed to claims about price and product features, such as package size. A representative community pharmacy newspaper ad is shown in Appendix C.

Knowledge of the FDA regulations on prescription pharmaceutical advertising, and the common representation in community pharmacy newspaper advertisements of pharmacy products as shopping goods, helps to provide a perspective for understanding why only certain kinds of information appears in these ads. As noted earlier, one focus of this research is to develop a clearer understanding of the product information contained in community pharmacy newspaper advertisements.

A second focus of this research is to develop a method for examining the types of information contained in community pharmacy newspaper advertisements. This method could be used to develop an information base for future research. For example, simulated community pharmacy newspaper ads could be developed to study consumer attitudes toward pharmacy product advertisements.

## CHAPTER 3

### OBJECTIVES AND RESEARCH HYPOTHESES

Community pharmacy newspaper advertisements contain information about pharmacy products. As noted earlier, pharmacy products include all physical and service goods available in a traditional community pharmacy. Throughout this report, references to the information contained in community pharmacy newspaper advertisements refers to information about pharmacy products.

The objectives of this study are to:

- (1) Describe community pharmacy newspaper advertisements by:
  - a. identifying types of pharmacy product information
  - b. identifying product classes for pharmacy products
  - c. developing an ad classification system
  
- (2) Develop and use a standardized ad information profile to guide the collection of information contained in community pharmacy newspaper advertisements.

(3) Group ads according to community pharmacy sponsor and collect all information contained in each ad using the ad information profile.

(4) Develop standardized measures of the information contained in each ad's headlines, graphics and written text components.

- a. partition information into price and product types of information
- b. compute the number of bits of price and product information
- c. compute price, product and total ad information scores for each ad's headlines, graphics and written text components
- d. compute total information scores for each ad which will consist of price, product and total ad information scores
- e. compute summary information and average information scores for each community pharmacy sponsor's ads

(5) Characterize ads grouped by community pharmacy sponsor according to the:

- a. number of ads sponsored
- b. class of advertisement
- c. distribution of ad classes among all ads and among ads of individual sponsors
- d. volume of information and distribution of classes of information among all ads and among the ads of individual sponsors

(6) Group ads according to ad type and characterize the ads according to:

- a. the number of each class of ad
- b. the volume of information and distribution of classes of information among the classes of ads

Two research hypotheses will be examined.

Research hypothesis (1): There are differences among community pharmacy newspaper ad sponsors according to the volume and distribution of pharmacy product information across price and product categories of information contained in physical, service and combined physical and service goods ads; and according to the distribution of advertisements of individual sponsors across physical,

service and combined physical and service goods ads.

Research hypothesis (2): There are differences among physical, service and combined physical and service goods classes of community pharmacy newspaper advertisements according to the volume of information and distribution of types of information about pharmacy products contained in the advertisements.

## CHAPTER 4

### METHODS

The nature of this research is exploratory and descriptive. It also is cross-sectional since it only is an examination of pharmacy product information contained in community pharmacy newspaper advertisements for one year. In this chapter the researcher will discuss: (1) sample design, (2) identification of types of pharmacy product information and pharmacy product classes and development of classes of ads, (3) design of the data collection instrument, (4) data collection procedures, (5) data analysis, and (6) limitations of the research.

#### Sample Design

The sample universe consisted of community pharmacy free-standing insert and run-of-paper advertisements in the two major daily newspapers in Madison, WI. A free-standing insert is an advertisement, often in booklet form, that is added to a newspaper as a supplement. A

run-of-paper advertisement is placed directly in a newspaper page among news articles and other advertisements. The sampling frame was delimited on the basis of two factors. First, the calendar year 1983 was selected to specify the time period limits of the sampling frame. This time period was chosen because during this period Health Maintenance Organizations (HMOs) emerged in the Madison health care market(1). It was anticipated that these new competitors in the Madison market could have stimulated advertising by health care providers, such as community pharmacies. Second, Sunday editions of the Wisconsin State Journal and Wednesday editions of the Capital Times newspapers were selected to define the scope of the sampling frame.

These editions were selected because they contain most of the community pharmacy advertisements run in a week's newspapers(2). Then, a census sampling procedure was used to obtain the free-standing insert and run-of-paper

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<sup>1</sup>Joseph B. Wiederholt, "Consumer Behavior," in The Changing Health Care Environment: Its Impact on Pharmacy and the Pharmaceutical Industry Midwest Conference, Indiana University-Purdue University at Indianapolis, IN. November 11-14, 1987, p.9-15.

<sup>2</sup>Ron Larson, Madison Newspapers, Inc., Newspaper Library, Madison, WI. Telephone conversation, May 31, 1989.

community pharmacy newspaper advertisements. A complete collection of Wisconsin State Journal and Capital Times newspapers was available at the Madison Public Library. This is a microfilm collection stored on film produced by the Microphoto Division of Bell & Howell. Using a Minolta RP 503 Microfilm/fiche reader/printer, all Sunday editions of the Wisconsin State Journal and Wednesday editions of the Capital Times newspapers were scanned for community pharmacy newspaper advertisements. Black and white photocopies of 8 1/2 by 11 inch dimensions were made of all community pharmacy newspaper advertisements found.

#### **Characterization Of Community Pharmacy Newspaper Advertisements**

A review of all collected community pharmacy newspaper advertisements revealed that two types of information about pharmacy products were present. The first type, called price information, refers to the monetary value of any of the products advertised. The second type, called product information, refers to the identity or any feature of a product but which does not include monetary value information. Since this is preliminary research, this broad typology is considered a useful first step in organizing the pharmacy products information presented in community pharmacy newspaper ads. Examples of statements

containing price and product information obtained from collected advertisements are presented in Appendix D.

A review of all collected ads revealed two classes of products were advertised: (1) physical goods, and (2) service goods. Physical goods products are tangible objects that meet certain standards of production(eg. quality or size standards); are produced and stored prior to consumption or use; and generally have a long channel of distribution(eg. manufacturer-wholesaler-provider-consumer(patient))(3,4,5). A blood pressure meter and manufactured pharmaceuticals are examples of physical goods. Service goods products are intangible, people-based efforts; are not as standardized as physical goods; are produced and consumed when delivered; and generally have a short channel of distribution(eg. provider-consumer(patient))(6,7,8) A pharmacist review of patient medication profiles and provision of verbal consultation

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<sup>3</sup>Rathmell, p.32-36.

<sup>4</sup>Enis, p.2-27.

<sup>5</sup>McCarthy, p.303.

<sup>6</sup>Rathmell, p.32-36.

<sup>7</sup>Enis, p.2-27.

<sup>8</sup>McCarthy, p.303.

are examples of service goods. Examples of some of the pharmacy products offered in the collected advertisements are contained in Appendix E.

Based on the classes of pharmacy products advertised, an advertisement classification system was developed that contained three classes of advertisements: (1) physical goods advertisements; (2) service goods advertisements; and (3) combined physical and service goods advertisements. Physical and service goods advertisements contain information about physical and service goods, respectively. Combined physical and service goods advertisements contain information about both physical and service goods. Examples of the three classes of advertisements are contained in Appendices F-H.

#### **Data Collection Instrument Design**

Methods used in attitude toward the ad research served as a guide for the development of the data collection instrument, the standardized ad information profile(9,10,11). In attitude toward the ad research,

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<sup>9</sup>MacKenzie and Lutz, p.49.

<sup>10</sup>Gardner, p.194.

<sup>11</sup>Mitchell and Olson, p.321.

effects of advertisements on consumer attitudes often are measured through the use of simulated ads. These simulated ads most often have been developed on a framework of an ad headline, some type of graphics and written text. The three-component framework has been used because these are typical components of advertisements for the types of products studied. Since this research is envisioned as a preliminary step in furthering studies of community pharmacy newspaper ads to the point where attitude toward the ad research can be conducted, it was decided to attempt to collect ad information based on the ad headline, graphics and written text three component framework.

A review of all collected ads was done to determine if the three component framework could be used to capture all of the information contained in the pharmacy ads. This framework was found to capture all of the information in most of the ads. However, some ads had slogans, logos or repeating formats containing such information as pharmacy locations and telephone numbers that were difficult to classify into the three component framework. Consequently, a fourth component, labelled 'other', was included in the ad information profile so as to enable collection of all of the information contained in an

advertisement. Thus, the profile components were: (1) ad headline; (2) graphics; (3) written text; and (4) other.

Ad headlines were defined as the bold or large print written words placed in the upper part of the advertisement. Graphics were defined as pictures of such items as products, personnel, equipment such as computers or delivery vehicles and coupons. If the graphics were boxed within an ad, or if the graphic included a coupon, printed words within the boxed part of the ad or within the coupon were analyzed as part of the graphics. Similarly, if a pictured product label contained legible printed words, the information contained in the label was analyzed as part of the graphic.

Any written words not included in the ad headline or graphics, and which did not contain information about slogans, logos, pharmacy locations, hours of business or telephone numbers, composed the written text component of the advertisement. Finally, slogans, logos, pharmacy locations, hours of business or telephone numbers were classified as 'other' information. An ad information profile is shown in Appendix I.

#### **Ad Selection Criteria**

All run-of-paper advertisements were identified as

community pharmacy ads and advertised products (physical and Service goods) associated with pharmacists or prescription drugs. Free-standing insert ads, however, typically are larger and contain more product information than run-of-paper ads. The range of products advertised tends to be broader as well. Typically, the section of these ads devoted to presentation of pharmacy products information is boxed, thus setting the pharmacy component of the ad apart from the rest of the advertisement. In some cases, the separation is accomplished via partitioning of an advertisement by store departments. For instance, pharmacy product information could be contained under the headline, "Pharmacy Specials," while school supplies information could be contained under the headline, "Back to School Savings."

Because several methods were used to separate pharmacy products information from the other information presented in the free-standing insert advertisements, two ad selection criteria were developed for free-standing insert ads:

First, if a free-standing insert advertisement did not have a headline for the entire ad or a section of the ad that contains the words pharmacy, pharmacists,

prescriptions, or some other words relating specifically to pharmacy, the ad was not included in the analysis.

Second, if a free-standing insert advertisement had a section within the ad that contained the words pharmacy, pharmacists, prescriptions, or some other words relating specifically to pharmacy, only that section within the ad was analyzed.

The purpose of the criteria was to define the part of free-standing insert ads to be analyzed. Such a refinement was considered necessary to allow comparisons of ads from independent and chain (defined as six or more pharmacies under common ownership) pharmacies.

### **Data Collection**

For the initial analysis, all advertisements satisfying the ad selection criteria were grouped according to sponsor. Within each group of advertisements, each advertisement was assigned an identification number and was chronologically ordered by date of appearance in a newspaper with the other ads in the group.

An ad information profile was compiled for each of the advertisements satisfying the ad selection criteria. This

was done by taking the information from the ad and transferring it to the ad information profile under the appropriate ad component: (1) ad headline; (2) graphics; (3) written text; and (4) other.

### **Standardized Measures Of Ad Information**

The ad information profiles of community pharmacy newspaper advertisements were the sources of pharmacy product information for the analyses. Only the information contained in ad headlines, graphics and written texts were included in the analysis. This was done because these three components were common to all of the ads analyzed, while the fourth component, labelled 'other,' was not present in all of the advertisements. The information contained in the three ad components was converted into a standardized measure in order to allow for comparisons to be made among ads of individual sponsors and among physical, service and combined physical and service goods ads.

The standardized measure was developed via a two step process. First, all information in the three ad components, headline, graphics and written text, was analyzed in order to partition information according to whether price or product information was presented. For

instance, the statement, "Double your money back offer on prescriptions," was classified as containing price information. The statement, "We stock the most effective generics," was classified as containing product information. The statement, "The intercom card that could save your life...yours free at Walgreen." was classified as containing price and product information.

The second step in developing the standardized measure was to count the number of bits of information contained in the three ad components. An information bit was defined as printed or graphic information that contains one piece of information or one meaning. Bits of information were counted separately according to whether the information pertained to price or product information. For example, the previously mentioned price statement, "Double your money back offer on prescriptions," has one information bit and it pertains to price. For the product information statement, "We stock the most effective generics," there are two bits of information, both pertaining to the product; (1) we stock generics; and (2) our generics are effective. For the statement that provides both price and product information, "The intercom card that could save your life...yours free at Walgreen," there are three product information bits and one price

information bit.

PRODUCT INFORMATION BITS

- (1) Intercom card
- (2) Could save your life
- (3) Walgreen has the card

PRICE INFORMATION BIT

- (1) Yours free at Walgreen

The headlines and written text components of the ad information profiles were analyzed for information bits as outlined above. The same method was used for the graphics component when the graphics contained product pictures or coupons with information contained within the coupon. If the graphics consisted of a more abstract visual, for instance a pharmacist holding a prescription vial, a judgement was made as to whether the graphic implied a price or product bit of information. A pharmacist holding a prescription vial was classified as containing one bit of product information because the emphasis is placed on the product. On the other hand, a talking cash register was classified as containing one bit of price information.

No adjustments were made for repetitive information. Each piece or bit of information constituted one new information bit.

Using this method, the bits of price and product

information contained in the three ad components, ad headline, graphics and written text, were counted.

### **Data Analysis**

For the physical and service goods ads, since the ad contained either physical or service goods product information, the analysis was the same. For the combined physical and service goods ads the price and product information first was partitioned into whether the information pertained to the physical or service good. Then, as was done for physical and service goods ads, information scores were computed for each ad component: ad headline, graphics and written text. The number of bits of price and product information were summed to produce a price and product information score for each ad component. A total information score for each ad component was computed by summing price and product information scores within each component. Then, ad price, product and total ad information scores were computed by summing the respective scores from each ad component. Example computations of ad price, product and total ad information score are contained in Appendix J.

These scores were compiled on an ad analysis score sheet for each ad which contains the frequency and

distribution of bits of price and product information within each of the three ad components included in the analysis. Appendix J also contains an example of an ad analysis score sheet for a physical goods ad sponsored by one community pharmacy. Ad analysis score sheets were developed for all advertisements included in the study.

A summary ad analysis score sheet was developed for each community pharmacy ad sponsor. It contains the frequency and distribution of price and product information bits contained in physical, service and combined physical and service goods ads of individual sponsors.

Summary ad analysis average score sheets were developed for individual community pharmacy newspaper ad sponsors. These average score sheets contain average scores. Average scores were computed by dividing the total number of price, product and total ad information bits in physical, service and combined physical and service goods ads by the respective total number of such ads of each sponsor.

The ad analysis score sheets were divided to create pools of physical, service and combined physical and service goods ads score sheets. As was done for individual pharmacy newspaper ad sponsors, summary ad analysis score

sheets and summary ad analysis average score sheets were compiled for physical, service and combined physical and service goods ads.

Frequency and proportion descriptive statistics were used to compare and contrast ad analysis scores and ad analysis average scores among pharmacy ad sponsors and among physical, service and combined physical and service goods advertisements.

Ratios of product to price information bits were computed to enable determination of the magnitude of the difference in relative amounts of these types of information. These ratios were computed for all the ads of each sponsor that were physical, service or combined physical and service goods ads. The computation was done by summing the bits of price and product information for all the ads of each sponsor within each of the three ad types. Then the total number of product information bits was divided by the total number of price information bits. Appendix K contains sample computations for information scores, average and grand average information scores and product to price information ratios.

### **Limitations**

Some limitations of this study should be noted. The

community pharmacy newspaper advertisements were collected for the calendar year 1983. Health care advertising has increased in prevalence and scope over the last six years in this community. It is possible there have been changes in the information content of community pharmacy newspaper advertisements. Further, increased competition in the Madison health care market has stimulated shifts in the targeted markets for some community pharmacies. Based on personal observation, several of the community pharmacies whose advertisements were analyzed in this study have shifted the focus of their promotions to a more direct emphasis toward service goods products. Others have shifted to a more direct emphasis toward physical goods products. Both of these shifts have occurred as markets are identified and targeted by pharmacies in their efforts to remain competitive. These factors may make it difficult to extrapolate the results of this research to current community pharmacy newspaper advertisements in Madison.

The method of analysis of all community pharmacy newspaper advertisements only focused on a single general type of advertising. Community pharmacies also sponsor advertisements through other media, such as radio and television. The results of this research only apply to

newspaper advertisements sponsored by community pharmacies.

In this research, advertisements were grouped based on the types of products advertised, but other types of groupings are possible. For instance, free-standing inserts are larger and contain more products and information than run-of-paper advertisements. Analyzing these advertisements as a group could result in loss of some of the information contained in the free-standing inserts and a dominance of the overall results by this type of ad.

In order to standardize these two types of advertisements so that both could be analyzed as one group, ad selection criteria were developed. As noted earlier, these criteria were used to define the specific component of the free-standing insert ads to be analyzed. These criteria likely were, at times, applied subjectively. That could affect the validity and reliability of this study. For instance, in some cases the pharmacy component of a free-standing insert ad was not clearly set apart from the rest of the advertisement. That necessitated judgement to define the specific component of the ad to be analyzed. Consequently, some information may not have been extracted.

Another limitation is national pharmacy chain advertisements tend to contain more physical goods products and related information when compared to independent community pharmacy newspaper advertisements. This might be a result of the tendency of national chain pharmacies to be physically larger and stock more physical goods products than do independent community pharmacies. In this analysis the national pharmacy chain advertisements appear to be oriented more to physical goods products than may be the case.

Another limitation is that information contained in community pharmacy newspaper ads was classified as price or product information. A more detailed information classification scheme could enable a better understanding of the types of pharmacy product information contained in ads.

Last, there was unequal representation of community pharmacy sponsors included in this study. National pharmacy chains tend to sponsor more advertisements than do independent community pharmacies. In this research, this could have resulted in the national pharmacy chain advertisements dominating the results.

## CHAPTER 5

### RESULTS

Identification of types of pharmacy product information and classes of pharmacy products and development of an advertisement classification system was useful in characterizing community pharmacy newspaper advertisements. All information in the ad headlines, graphics and written text ad components was classified as price or product information. Further, all products advertised were classified as physical or service goods. In addition, analysis of ad information and products presented enabled all advertisements to be classified as physical, service or combined physical and service goods advertisements.

#### Characterization Of Advertisements

The 105 collected advertisements were either free-standing insert(n=38) or run-of-paper(n=67) ads. All run-of-paper advertisements were identified as community

pharmacy newspaper advertisements and advertised products associated with a community pharmacy. Consequently, all 67 run-of-paper ads were included in the analysis. Of the 38 free-standing insert ads, 32 satisfied the ad selection criteria and were included in the analysis. The six ads not included in the analysis violated both criteria. There were nine sponsors of the 99 ads analyzed. A list of advertisements from each of the nine sponsors is shown in Table 1. Three sponsors (Walgreen, Shopko and Prescription Pharmacy) accounted for nearly 78% of all the advertisements analyzed.

Of the 99 advertisements analyzed, 42.4% (n=42) were classified as physical goods ads, 26.3% (n=26) as service goods ads and 31.3% (n=31) were classified as combined physical and service goods ads. The distribution of physical, service and combined physical and service goods ads across the ads of nine sponsor community pharmacies is shown in Table 2. Two sponsors (Walgreen and Shopko) accounted for nearly 67% of the physical goods ads and two sponsors (Walgreen and Prescription Pharmacy) accounted for nearly 88% of the service goods ads. Three sponsors (Walgreen, Shopko and Prescription Pharmacy) accounted for about 74% of the combined physical and service goods ads.

There were 2,172 information bits extracted from the

Table 1: Distribution Of Ads Analyzed Across Nine Sponsors

<u>Sponsor</u>	<u>No. Ads Sponsored</u>	<u>% of Ads Analyzed</u>
Walgreen	41	41.4
Shopko	19	19.2
Prescription Pharmacy	17	17.2
WSA Community Pharmacy	10	10.1
K-MART Pharmacy	7	7.1
Consumer's Discount Pharmacy	2	2.0
Thrift Drug	1	1.0
Gerhardt Drugs	1	1.0
Bergmann's Pharmacy	<u>1</u>	<u>1.0</u>
Totals	99	100.0

Table 2: Distribution Of Sponsors' Ads Across Physical, Service And Combined Physical And Service Goods Ads

<u>Sponsor</u>	<u>Physical Goods Ads</u>		<u>Service Goods Ads</u>		<u>Combined Physical &amp; Service Goods</u>	
	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>
Walgreen	18	42.8	15	57.7	8	25.8
Shopko	10	23.8	2	7.7	7	22.6
Prescription Pharmacy	1	2.4	8	30.8	8	25.8
WSA Community Pharmacy	4	9.5	1	3.8	5	16.1
K-MART Pharmacy	5	11.9	0	-	2	6.5
Consumer's Discount Pharmacy	1	2.4	0	-	1	3.2
Thrift Drug	1	2.4	0	-	0	-
Gerhardt Drugs	1	2.4	0	-	0	-
Bergmann's Pharmacy	<u>1</u>	<u>2.4</u>	0	<u>-</u>	<u>0</u>	<u>-</u>
Totals	42	100.0	26	100.0	31	100.0

99 advertisements analyzed with 30.7%(n=666) assigned to the price information category and 69.3%(n=1506) assigned to the product information category. Four sponsors (Walgreen, Shopko, Prescription Pharmacy and WSA Community Pharmacy) accounted for about 81% of the price information bits and about 85% of the product information bits(Table 3).

In summary(Tables 1, 2 and 3), four of the nine community pharmacy newspaper advertisement sponsors (Walgreen, Shopko, Prescription Pharmacy and WSA Community Pharmacy) dominate the results in terms of the number of physical, service and combined physical and service goods ads and the number of bits of price and product information.

#### **Comparisons Of Physical, Service And Combined Physical And Service Goods Advertisements Among Community Pharmacy Ad Sponsors**

Table 4 contains the distribution of the advertisements from each sponsor across physical, service and combined physical and service goods ads. Three patterns of ad distributions appear across these three types of advertisements. The first pattern is exhibited by Walgreen advertisements; about 44%(n=18)

Table 3: Distribution Of Pharmacy Product Information Bits  
From 99 Ads Across Ad Sponsors

<u>Sponsor</u>	Information Bits			
	<u>Price Information</u> <u>Freq</u>	<u>%</u>	<u>Product Information</u> <u>Freq</u>	<u>%</u>
Walgreen	130	19.5	350	23.3
Shopko	237	35.6	481	31.9
Prescription Pharmacy	84	12.6	217	14.4
WSA Community Pharmacy	89	13.4	234	15.5
K-MART Pharmacy	30	4.5	103	6.8
Consumer's Discount Pharmacy	10	1.5	18	1.2
Thrift Drug	23	3.5	18	1.3
Gerhardt Drugs	1	0.1	9	0.6
Bergmann's Pharmacy	<u>62</u>	<u>9.3</u>	<u>76</u>	<u>5.0</u>
Totals	666	100.0	1506	100.0

Table 4: Distribution Of Physical, Service And Combined Physical And Service Goods Ads Within Pharmacy Ad Sponsors

<u>Sponsor</u>	<u>Physical Goods Ads</u>		<u>Service Goods Ads</u>		<u>Combined Physical &amp; Service Goods</u>	
	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>
Walgreen	18	43.9	15	36.6	8	19.5
Shopko	10	52.6	2	10.5	7	36.9
Prescription Pharmacy	1	5.8	8	47.1	8	47.1
WSA Community Pharmacy	4	40.0	1	10.0	5	50.0
K-MART Pharmacy	5	71.4	0	-	2	28.6
Consumer's Discount Pharmacy	1	50.0	0	-	1	50.0
Thrift Drug	1	100.0	0	-	0	-
Gerhardt Drugs	1	100.0	0	-	0	-
Bergmann's Pharmacy	1	100.0	0	-	0	-

are physical goods ads, with nearly 37%(n=15) as service goods ads and about 20%(n=8) as combined physical and service goods ads.

The second pattern is exhibited by Shopko and K-MART Pharmacy advertisements. In this pattern, the most common advertisements were for physical goods, followed by combined physical and service goods ads and service goods ads. The Prescription Pharmacy advertisements exhibit the third pattern where service goods and combined physical and service goods ads were most common, followed by physical goods ads.

The volume of information contained in community pharmacy newspaper advertisements varies according to the sponsor of the ad. As can be seen in Table 5, Shopko ads contained a total of 718 bits of information. Walgreen, Prescription Pharmacy and WSA Community Pharmacy ads contained information bits totals of 480, 301 and 323 respectively. Shopko sponsored about 54% fewer ads than did Walgreen. However, Shopko ads contained overall about 50% more information bits than did Walgreen ads. Thus, an average Shopko ad tended to contain more information than did an average Walgreen ad.

Another pattern in Table 5 is that there is more product than price information contained in the ads of

Table 5: Distribution Of Total Information Bits Across Price And Product Types Of Pharmacy Product Information Within Ads Of Sponsors

<u>Sponsor</u>	Type of Information				<u>Total Bits</u>
	Price		Product		
	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	
Walgreen	130	27.1	350	72.9	480
Shopko	237	33.0	481	67.0	718
Prescription Pharmacy	84	27.9	217	72.1	301
WSA Community Pharmacy	89	27.6	234	72.4	323
K-MART Pharmacy	30	22.6	103	77.4	133
Consumer's Discount Pharmacy	10	35.7	18	64.3	28
Thrift Drug	23	56.1	18	43.9	41
Gerhardt Drugs	1	10.0	9	90.0	10
Bergmann's Pharmacy	62	44.9	76	55.1	138

all sponsors except one(Thrift Drug). For instance, of 480 total information bits contained in 41 Walgreen ads, 350 information bits pertained to product information and 130 information bits pertained to price information. For the Thrift Drug ad, there were more price information bits(23) than product information bits(18).

The price and product information contained in the advertisements of the nine community pharmacy ad sponsors further can be analyzed according to the distribution of the information across physical and service good products. Table 6 contains the distribution of price and product information bits within ads of sponsors across physical and service goods. For example, from Table 5 it was noted that Walgreen ads contained 350 bits of product information. In Table 6, these 350 product information bits are shown to be composed of 160 product information bits pertaining to physical goods products and 190 product information bits pertaining to service goods products.

In the advertisements from all sponsors except Prescription Pharmacy, the majority of the price information contained in the advertisements pertained to physical goods products. It was more common for most ads to contain price information for physical goods than for service goods. Prescription Pharmacy advertisements

Table 6: Distribution Of Price And Product Information Bits By Type Of Good Within Ads Of Sponsors

<u>Sponsor</u>	Type Of Information							
	Price				Product			
	<u>Phys Freq</u>	<u>Good %</u>	<u>Serv Freq</u>	<u>Good %</u>	<u>Phys Freq</u>	<u>Good %</u>	<u>Serv Freq</u>	<u>Good %</u>
Walgreen	94	19.6	36	7.5	160	33.3	190	39.6
Shopko	228	31.8	9	1.2	420	58.5	61	8.5
Prescription Pharmacy	41	13.6	43	14.3	57	18.9	160	53.2
WSA Community Pharmacy	88	27.2	1	0.3	204	63.2	30	9.3
K-MART Pharmacy	30	22.6	0	-	91	68.4	12	9.0
Consumer's Discount Pharmacy	10	35.7	0	-	14	50.0	4	14.3
Thrift Drug	23	56.1	0	-	18	43.9	0	-
Gerhardt Drugs	1	10.0	0	-	9	90.0	0	-
Bergmann's Pharmacy	62	44.9	0	-	76	55.1	0	-

contained a nearly equal distribution of price information across physical and service goods products.

The most frequent type of price information pertaining to physical goods was a retail price. The large number of price information bits (228 total information bits) for Shopko ads primarily can be attributed to the common use of price comparison charts in Shopko ads. Further, Shopko ads' price comparison charts often contained more physical goods, and so had more physical goods price information bits, than did ads of other sponsors.

The most frequent type of price information pertaining to service goods was that services were free. Walgreen and Prescription Pharmacy advertised that their services were free more often than did other sponsors.

Whereas all but one of the advertisements (Thrift Drug) exhibit a pattern of more product than price information, there are differences among advertisements of different sponsors in the distribution of product information across physical and service good products. Only Walgreen and Prescription Pharmacy ads presented more product information for service goods than for physical goods.

Table 7 contains price, product and total ad information scores across physical, service and combined physical and service goods ads within ads of individual

Table 7. Price, Product And Total Ad Information Scores Across Physical, Service And Combined Physical And Service Goods Ads Within Ads Of Sponsors

COMBINED PHYSICAL AND SERVICE GOOD ADS

SPONSOR	PHYSICAL GOOD ADS			SERVICE GOOD ADS			COMBINED PHYSICAL AND SERVICE GOOD ADS			COMBINED PHYSICAL AND SERVICE GOOD ADS COMPONENTS					
	Information Scores			Information Scores			Information Scores			PHYSICAL GOOD			SERVICE GOOD		
	Price	Product	Total Ad	Price	Product	Total Ad	Price	Product	Total Ad	Price	Product	Total	Price	Product	Total
Walgreen	77	151	228 (18) <sup>a</sup>	26	161	187 (15)	27	38	65 (8)	17	9	26	10	29	39
Shopko	157	181	338 (10)	3	10	13 (2)	77	290	367 (7)	71	239	310	6	51	57
Prescription Pharmacy	8	22	30 (1)	5	77	82 (8)	71	118	189 (8)	33	35	68	38	83	121
WSA Community Pharmacy	48	99	147 (4)	1	10	11 (1)	40	125	165 (5)	40	105	145	0	20	20
K-MART Pharmacy	23	75	98 (5)	-	-	-	7	28	35 (2)	7	16	23	0	12	12
Consumer's Discount Pharmacy	7	10	17 (1)	-	-	-	3	8	11 (1)	3	4	7	0	4	4
Thrift Drug	23	18	41 (1)	-	-	-	-	-	-	-	-	-	-	-	-
Gerhardt Drugs	1	9	10 (1)	-	-	-	-	-	-	-	-	-	-	-	-
Bergmann's Pharmacy	62	76	138 (1)	-	-	-	-	-	-	-	-	-	-	-	-
Grand Total for Ad Type	406	641	1047 (n=42)	35	258	293 (n=26)	225	607	832 (n=31)	171	408	579	54	199	253

<sup>a</sup>number of ads

sponsors. Recall that physical goods ads contain only price and product information about physical goods. Similarly, service goods ads contain only price and product information about service goods. Thus, the price information score of 77 for Walgreen physical goods ads only pertains to physical goods. Similarly, the product information score of 161 for Walgreen service goods ads only pertains to service goods.

Combined physical and service goods ads' physical and service goods components were analyzed separately. The price, product and total information scores for these components are contained in the six columns on the right side of Table 7. Note that Walgreen combined physical and service goods ads had price and product information scores of 26 and 39, respectively, for the physical and service goods components. Of the total information score of 26 pertaining to the physical goods component, 17 pertains to price information and 9 pertains to product information.

Walgreen and Prescription Pharmacy service goods ads contain more product information than their physical goods ads. Further, there is more service than physical good product information in Walgreen and Prescription Pharmacy combined physical and service goods ads.

Shopko and WSA Community Pharmacy physical goods ads

contain more product information than their service goods ads. In addition, there is more physical than service good product information in Shopko and WSA Community Pharmacy combined physical and service goods ads. There is an opposite trend for the price information for Shopko and WSA Community Pharmacy ads of all three classes.

An analysis of the price, product and total ad information contained in physical, service and combined physical and service goods advertisements according to the number of advertisements sponsored by each pharmacy allows development of a measure that can be used for comparisons. Consequently, average price and product information scores, along with average total ad information scores, were computed for physical, service and combined physical and service goods ads. Additionally, average price, product and total information scores were computed separately for the physical and service goods components of the combined physical and service goods ads. These scores represent standard measures of the amounts of price and product information presented in the three types of advertisements. These scores help to summarize the data presented in Tables 5-7 and allow for comparisons within and among the ads of community pharmacy newspaper advertisement sponsors. The following results will focus

advertisement sponsors. The following results will focus on the measures of price, product and total ad information (the average scores) for the advertisements sponsored by Walgreen, Shopko, Prescription Pharmacy, WSA Community Pharmacy and K-MART Pharmacy.

### **Physical Goods Advertisements Information**

WSA Community Pharmacy physical goods advertisements contained the largest average amount of total ad information of the physical goods advertisements of the five sponsors being considered (Table 8). This is reflected in the average physical goods total ad information scores for WSA Community Pharmacy (36.8), Shopko (33.8), Prescription Pharmacy (30.0), K-MART Pharmacy (19.6) and Walgreen (12.7). As shown in Table 8, the average product information score accounts for the largest share of the average total ad information score for each of the pharmacy advertisement sponsors being considered (Walgreen, Shopko, Prescription Pharmacy, WSA Community Pharmacy and K-Mart Pharmacy). Of the total amount of information contained in physical goods ads, there is more product than price information. Furthermore, for four of the five most frequent ad

Table 8. Average Price, Product and Total Ad Information Scores Across Physical, Service And Combined Physical And Service Goods Ads Within Ads Of Sponsors

SPONSOR	PHYSICAL GOOD ADS			SERVICE GOOD ADS			COMBINED PHYSICAL AND SERVICE GOOD ADS			COMBINED PHYSICAL AND SERVICE GOOD ADS					
	Price	Product	Total Ad	Price	Product	Total Ad	Ave. Information Scores	Price	Product	Total Ad	Ave. Information Scores	Price	Product	Total	
Walgreen	4.3	8.4	12.7 (18) <sup>a</sup>	1.7	10.7	12.4 (15)	3.4	4.7	8.1 (8)	2.1	1.1	3.2	1.3	3.6	4.9
Shopko	15.7	18.1	33.8 (10)	1.5	5.0	6.5 (2)	11.0	41.4	52.4 (7)	10.1	34.1	44.2	0.9	7.3	8.2
Prescription Pharmacy	8.0	22.0	30.0 (1)	0.6	9.6	10.2 (8)	8.8	14.8	23.6 (8)	4.1	4.4	8.5	4.7	10.4	15.1
WSA Community Pharmacy	12.0	24.8	36.8 (4)	1.0	10.0	11.0 (1)	8.0	25.0	33.0 (5)	8.0	21.0	29.0	0.0	4.0	4.0
K-MART Pharmacy	4.6	15.0	19.6 (5)	-	-	-	3.5	14.0	17.5 (2)	3.5	8.0	11.5	0	6.0	6.0
Consumer's Discount Pharmacy	7.0	10.0	17.0 (1)	-	-	-	3.0	8.0	11.0 (1)	3.0	4.0	7.0	0	4.0	4.0
Thrift Drug	23.0	18.0	41.0 (1)	-	-	-	-	-	-	-	-	-	-	-	-
Gerhardt Drugs	1.0	9.0	10.0 (1)	-	-	-	-	-	-	-	-	-	-	-	-
Bergmann's Pharmacy	62	76	138 (1)	-	-	-	-	-	-	-	-	-	-	-	-
Grand Total Average Information Scores (unweighted) By Type of Ad and Information	9.6	15.3	24.9 (n=42)	1.4	9.9	11.3 (n=26)	7.2	19.6	26.8 (n=31)	5.5	13.2	18.7	1.7	6.4	8.1

unweighted average scores computed from information bit totals

<sup>a</sup>number of ads

sponsors(Walgreen, Shopko, WSA Community Pharmacy and K-MART Pharmacy), their physical goods ads contained more price information, on average, than did their service goods and combined physical and service goods ads.

#### **Service Goods Advertisements Information**

Walgreen service goods advertisements had the highest average total ad information score(12.4) for this type of ad, followed by WSA Community Pharmacy(11.0), Prescription Pharmacy(10.2) and Shopko(6.5)(Table 8). Specifically, Walgreen service goods advertisements contained more total ad information than did the service goods advertisements of the other community pharmacy ad sponsors. Of the total amount of information contained in service goods ad, there is more product than price information. As can be seen in Table 8, service goods ads contain less price information than do physical goods and combined physical and service goods ads.

#### **Physical Goods Component Information Of Combined Physical And Service Goods Advertisements**

Shopko and WSA Community Pharmacy had the highest average total information scores for the physical goods component of the combined physical and service goods advertisements, 44.2 and 29.0 respectively(Table 8). Of

the physical goods components of all the combined physical and service goods advertisements, Shopko and WSA Community Pharmacy ads contained more product information than did the ads of the other sponsors.

Consistent with the pattern noted for physical and service goods advertisements, for Shopko, WSA Community Pharmacy and K-MART Pharmacy, of the total amount of information about the physical good component of combined physical and service goods ads, there is more product than price information. For Prescription Pharmacy advertisements, price and product information contributed nearly equally to the average total information score for the physical goods component of the combined physical and service goods advertisements.

#### **Service Goods Component Information Of Combined Physical And Service Goods Advertisements**

Prescription Pharmacy had the highest average total information score(15.1) for the service goods component of the combined physical and service goods ads. As shown in Table 8, this high score primarily is due to higher average price and product scores than was found for the service goods components of the other combined physical and service goods ads.

Again, consistent with the pattern noted for physical

and service goods ads, and for the physical goods component of combined physical and service goods ads, of the total amount of information about the service good component of combined physical and service goods ads, there is more product than price information.

Ratios of product to price information for physical, service and combined physical and service goods ads of the nine sponsors are listed in Table 9. Of the five pharmacy ad sponsors being considered (Walgreen, Shopko, Prescription Pharmacy, WSA Community Pharmacy and K-MART Pharmacy), physical goods ads have the largest product to price information ratio. For service goods ads, Prescription Pharmacy ads have the largest product to price information ratio. Finally, for combined physical and service goods ads, K-MART Pharmacy ads have the largest product to price information ratio.

**Summary Of Comparisons Of Physical, Service And Combined Physical And Service Goods Ads Among Community Pharmacy Newspaper Ad Sponsors**

Walgreen advertisements tend to be either physical or service goods classes of ads with both classes containing

Table 9. Product To Price Information Ratios Across Physical, Service And Combined Physical And Service Goods Ads Within Ads Of Sponsors

SPONSOR	COMBINED PHYSICAL AND SERVICE GOOD ADS		
	PHYSICAL GOOD ADS PRODUCT/PRICE RATIO	SERVICE GOOD ADS PRODUCT/PRICE RATIO	PRODUCT/PRICE RATIO
Walgreen	1.96 (n=18)	6.19 (n=15)	1.41 (n=8)
Shopko	1.15 (n=10)	3.33 (n=2)	3.77 (n=7)
Prescription Pharmacy	2.75 (n=1)	15.40 (n=8)	1.66 (n=8)
WSA Community Pharmacy	2.06 (n=4)	10.00 (n=1)	3.12 (n=5)
K-MART Pharmacy	3.26 (n=5)	-	4.00 (n=2)
Consumer's Discount Pharmacy	1.43 (n=1)	-	2.67
Thrift Drug	0.78 (n=1)	-	-
Gerhardt Drugs	9.00 (n=1)	-	-
Bergmann's Pharmacy	1.23 (n=1)	-	-
Grand Averages (unweighted) From Ad Type	1.58 (n=42)	7.37 (n=26)	2.70 (n=31)

unweighted averages computed from information bit totals

nearly equal amounts of total ad information. Further, with the exception of the Gerhardt Drugs ad, Walgreen physical goods ads contain, on average, less total ad information than found in the physical goods ads of the other community pharmacy newspaper ad sponsors. However, the pattern of total ad information primarily being composed of product information exhibited by Walgreen physical and service goods ads is common to all such ads except the Thrift Drug Ad.

Shopko advertisements tend to be physical goods or combined physical and service goods classes of ads and these ads contain more total ad information than the corresponding advertisements of most of the other ad sponsors. For Shopko, the physical goods component contributes more than the service goods component to the total amount of information contained in combined physical and service goods ads. This pattern is common to three of the six community pharmacy sponsors of this class of advertisement (Shopko, WSA Community Pharmacy and K-MART Pharmacy). In addition, the pattern of total ad information being composed primarily of product information found in physical and service goods ads occurs in all cases for combined physical and service goods ads.

Prescription Pharmacy tended to sponsor service goods

or combined physical and service goods classes of ads. These service goods advertisements tend to contain, on average, less total ad information than found in the corresponding advertisements of Walgreen and WSA Community Pharmacy. WSA Community Pharmacy advertisements are most often combined physical and service goods or physical goods classes of advertisements. The physical goods ads sponsored by WSA Community Pharmacy contain, on average, more total ad information than did most of the other physical goods advertisements. K-MART Pharmacy advertisements are most often physical goods classes of ads and these ads contain the fourth smallest amount of total ad information among all physical goods ads from the sponsors being considered.

The first research hypothesis is restated here for convenience.

Research Hypothesis (1): There are differences among community pharmacy newspaper ad sponsors according to the volume and distribution of pharmacy product information across price and product categories of information contained in physical, service and combined physical and service goods ads, and according to the distribution of the advertisements of individual sponsors across physical, service and combined physical and service goods ads.

Based on the results, it is concluded there are differences among the ads of community pharmacy ad sponsors.

#### **Physical, Service And Combined Physical And Service Goods Advertisements Comparisons**

The 99 advertisements were classified and then grouped as physical, service or combined physical and service goods ads. As shown earlier (Table 1), 42.4% (n=42), 26.3% (n=26) and 31.3% (n=31) of the collected advertisements were classified as physical, service and combined physical and service goods ads, respectively. In this section of the results, comparisons and contrasts are made among the three classes of advertisements.

#### **Price And Product Information Distribution**

Physical, service and combined physical and service goods ads contain proportionally more product than price information (Table 10). For instance, for physical, service and combined physical and service goods ads, 61.2, 88.1 and 73.0 percent, respectively, of the total amount of ad information pertains to product information. The difference between the amounts of price and product information among the three classes of advertisements is found in Table 9.

Table 10. Distribution Of Price, Product And Total Ad Information Bits Across Physical, Service And Combined Physical And Service Goods Ads For All Ads Analyzed

SCORE	COMBINED PHYSICAL & SERVICE GOOD ADS									
	PHYSICAL GOOD ADS			COMBINED PHYSICAL AND SERVICE GOOD ADS						
	Freq.	Percent	Freq. Percent	Freq. Percent	Freq. Percent	Freq. Percent				
Price	406	38.8	35	11.9	225	27.0	171	29.5	54	21.3
Product	641	61.2	258	88.1	607	73.0	408	70.5	199	78.7
Total Ad	1047	100.0	293	100.0	832	100.0	579	100.0	253	100.0
(n=)	(42)		(26)		(31)					

Physical goods ads contain about 1.6 times as much product as price information, service goods ads contain about 7.4 times as much product as price information and combined physical and service goods ads contain about 2.7 times as much product as price information.

An examination of the price and product information distribution across the physical and service goods components of the combined physical and service goods advertisements shows a pattern similar to that found in physical and service goods ads. That is, there is a relatively greater proportion of product to price information for the service goods than for the physical goods component of combined physical and service goods ads.

#### **Average Price, Product And Total Ad Information Scores**

The information contained in the advertisements classified as physical, service or combined physical and service goods ads was pooled for each ad type (Table 10). Grand average (unweighted) price, product and total ad information scores then were computed. These scores, contained in Table 11, reflect earlier results and provide a standard measure that can be used to compare the

Table 11. Grand Average Price, Product And Total Ad Information Scores Across Physical, Service And Combined Physical And Service Goods Ads For All Ads Analyzed<sup>a</sup>

SCORE	COMBINED PHYSICAL & SERVICE GOOD ADS											
	COMBINED PHYSICAL AND SERVICE GOOD ADS				PHYSICAL GOOD				SERVICE GOOD			
	Freq.	Grand Average Score	Freq.	Grand Average Score	Freq.	Grand Average Score	Freq.	Grand Average Score	Freq.	Grand Average Score	Freq.	Grand Average Score
Price	406	9.6	35	1.4	225	7.2	171	5.5	54	1.7		
Product	641	15.3	258	9.9	607	19.6	408	13.2	199	6.4		
Total Ad	1047	24.9	293	11.3	832	26.8	579	18.7	253	8.1		
(n=)	(42)		(26)		(31)							

<sup>a</sup>Averages are unweighted and were computed from information bit totals

distribution of total ad information across price and product information for physical, service and combined physical and service goods ads.

Physical goods ads have a grand average price information score of 9.6. Service goods ads have a grand average price information score of 1.4. Combined physical and service goods ads have a grand average price information score of 7.2

Combined physical and service goods ads have a grand average product information score of 19.6. Physical and service goods ads have grand average product information scores of 15.3 and 9.9, respectively.

Combined physical and service goods ads contain, on average, the largest volume of total ad information (grand average total ad information score 26.8). Service goods ads contain, on average, the smallest volume of total ad information (grand average total ad information score of 11.3).

Service goods ads contain about 7.4 times as much product as price information. Combined physical and service goods ads contain about 2.7 times as much product as price information. Finally, physical goods ads contain about 1.6 times as much product as price information. The second research hypothesis is restated here for

convenience.

Research Hypothesis (2): There are differences among physical, service and combined physical and service goods classes of community pharmacy newspaper advertisements according to the volume of information and distribution of types of information about pharmacy products contained in the advertisements.

Based on the results, it is concluded there are differences among physical, service and combined physical and service goods ads.

**Comparisons Among Physical, Service And Combined Physical And Service Goods Ads Among Community Pharmacy Ad Sponsors: Revisited**

Profiles of average and grand average price, product and total ad information scores for physical, service and combined physical and service goods ads allows further comparisons among the ads of individual sponsors (Tables 8 & 11). Only the ads sponsored by Walgreen, Shopko, Prescription Pharmacy, WSA Community Pharmacy and K-MART Pharmacy will be discussed. Further, the discussion will not include the scores of the components of combined physical and service goods ads. Rather, the totals for combined physical and service goods ads will be included in the discussion.

Price, product and total ad information scores for Walgreen and K-MART Pharmacy physical goods and combined physical and service goods are below the grand average for such ads. Specifically, Walgreen physical goods ads have an average price information score of 4.3, an average product information score of 8.4 and an average total ad information score of 12.7. The grand average price, product and total ad information scores of all 99 ads analyzed are 9.6, 15.3 and 24.9, respectively. Thus, Walgreen physical goods ads have below grand average price, product and total ad information scores.

This means their advertisements contain less price and product information than is contained in the grand average of such ads. However, Walgreen service goods ads price, product and total ad information scores are above the grand average for such ads. They contain more information than the grand average of such ads. Shopko and WSA Community Pharmacy price, product and total ad information scores for physical goods and combined physical and service goods ads are above the grand average for such ads. Price, product and total ad information scores for WSA Community Pharmacy service goods ads are very close to the grand average. Conversely, the product and total ad information scores for Shopko service goods ads are below

the grand average. Prescription Pharmacy physical goods ads product and total ad information scores and combined physical and service goods ads price information scores are above the grand average. All other scores are below the grand average for Prescription Pharmacy advertisements.

Of the five sponsors being considered(Walgreen, Shopko, Prescription Pharmacy, WSA Community Pharmacy and K-Mart Pharmacy), WSA Community Pharmacy physical goods ads contain, on average, the most information for this class of advertisement. Walgreen service goods ads contain, on average, the most information for this class of advertisement. Finally, Shopko combined physical and service goods ads contain, on average, the most information for this class of advertisement.

## CHAPTER 6

### DISCUSSION

#### Advertisement Information And Consumer Expertise Issues

The advertisements analyzed in this research are representative of community pharmacy newspaper advertisements for the Madison, WI area for 1983. From a consumer perspective, the most frequently observed class of community pharmacy newspaper ads contained information about physical goods. Further, this class of ad contained more price information than other classes of community pharmacy newspaper advertisements. The second most frequently observed class of community pharmacy newspaper advertisements contained information about physical goods and service goods. The least frequently observed class of community pharmacy newspaper advertisements contained only information about service goods and much less price information than the other classes of pharmacy ads.

The ads from the most frequent ad sponsor, Walgreen, most often were physical goods ads, followed by service

goods and combined physical and service goods ads. The ads of the second most frequent ad sponsor, Shopko, most often were physical goods ads, followed by combined physical and service goods and service goods ads. Finally, the ads of the third most frequent ad sponsor, Prescription Pharmacy, most often were service goods and combined physical and service goods ads, followed by physical goods ads. Thus, in 1983 consumers were exposed to three classes of ads that appeared in three different patterns within the Madison, WI health care market and within the ads of individual sponsors.

For the three classes of ads, the relative proportions of product and price information were inconsistent across physical and service goods products. In terms of price information pertaining to service goods, there also was inconsistency across the majority of ads.

The most frequent sponsor of service goods ads, Walgreen, presented the most price information about service goods. That information usually was that the service was free. However, the most consistent sponsor of service-oriented ads, Prescription Pharmacy, often did not include service goods price information in ads.

It is likely consumers are confused by community pharmacy newspaper ads. Based on the shifting foci of the

ads in 1983, how were consumers to know whether a pharmacy offered low prices on a wide array of physical goods, or specialized in pharmacist services? Thus, it is likely the image portrayed by individual community pharmacies was confusing to consumers.

Also, there probably was confusion among consumers about the image of pharmacy products. Some sponsors represented physical goods, such as pharmaceuticals, as shopping goods in their ads. Often the focus of such ads was retail prices. Some sponsors bundled pharmaceuticals with pharmacist services in their ads. In such ads, the focus often was placed on the services associated with obtaining pharmaceuticals from the pharmacy, usually priced as free. Therefore, consumers likely are unsure if pharmacy products are retail goods or, what might be called, health-care goods.

If consumers are confused about the images of community pharmacies and pharmacy products, they also likely are confused about the image of pharmacists. If the pharmacy is perceived as a source of retail goods, and if pharmaceuticals are perceived as retail goods, then pharmacists are retailers, rather than health care providers.

As noted earlier, community pharmacy newspaper

advertisements may be the major source of consumer information about community pharmacies, pharmacy products and pharmacists. We already have considered possible effects on consumer perceptions of different classes of ads sponsored by the same pharmacy. We also must consider the repetitive nature of these ads that appear, potentially, on a weekly basis. This repetition reinforces information presented to consumers in community pharmacy newspaper advertisements. Community pharmacy newspaper advertisements contain and reinforce information that is confusing to the consumer.

Researchers have shown that consumer experience leads to beliefs. For instance, the Modified Structural Model of Attitude Toward the Ad Formation shows consumers' past experience affects their attitudes toward advertisers, the ad and the brand or product advertised(1,2). Further, consumers' experiences may lead to beliefs which may have negative effects on information search and interpretation(3). Finally, consumers make decisions

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<sup>1</sup>MacKenzie and Lutz, p.53.

<sup>2</sup>See p.31 for a discussion of the model.

<sup>3</sup>Joseph W. Alba and J. Wesley Hutchinson, "Dimensions of Consumer Expertise," Journal of Consumer Research 13 (March 1987):411-454.

based on previously learned information(4).

The information contained in community pharmacy ads may compose a significant component of consumer experience and learned information. If the presented information sends inconsistent or confusing messages to the consumer, the result could be negative consumer attitudes toward the pharmacy profession, pharmacy advertisements, pharmacy products and community pharmacies. Further, inconsistent or confusing messages can lead consumers to form beliefs about the pharmacy profession, pharmacy ads, pharmacy products and community pharmacies that are incorrect.

Lastly, some researchers have suggested that it can be difficult to provide new ad information in such a way as to change preexisting consumer expertise(5). One implication is that it could be difficult for a pharmacy to clarify its image, or even more difficult to redefine its image, in health care markets where community pharmacy newspaper ads are like those collected in this research.

### **Methodological Issues**

In order to analyze the information contained in the

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<sup>4</sup>Ibid, p.439.

<sup>5</sup>Ibid.

advertisements, they initially were grouped by sponsor and then by class of ad. That provided a useful framework for this preliminary analysis of community pharmacy newspaper advertisements.

However, more refined ad grouping schemes could enable a clearer understanding of the information presented in community pharmacy newspaper advertisements. For instance, ads could be grouped as free-standing insert or run-of-paper classes of ads and then analyzed. Such a grouping would enable a more complete collection of all the information contained in free-standing insert types of ads.

Advertisements also could be grouped by type of pharmacy sponsor, for instance by chain or independent pharmacies. The rationale for this grouping is that pharmacy chains are the most frequent sponsor of free-standing insert ads. Meanwhile, independent community pharmacies most frequently sponsor run-of-paper ads. Ad information analysis based on this grouping enables identification of similarities and differences in advertisements among chain and independent community pharmacies.

The information contained in community pharmacy newspaper advertisements was partitioned into price and

product information. The partitioning was used to capture some sense of the dichotomy between emphasis placed on price and product information contained in community pharmacy newspaper advertisements.

The proportions of price and product information could be useful indicators, especially in a longitudinal sense, of the market emphasis of individual ad sponsors. They also could be indicators of the nature of information presented by pharmacies to consumers. Newspaper advertisements, as noted earlier, are a major consumer information source about the pharmacy profession and about community pharmacies. Understanding the nature of the information contained in pharmacy ads would help researchers learn more about cues to consumers' cognitions and behaviors.

The pharmacy product information typology and products classification system for this study needs further refinement. For instance, product information could be categorized further into prescription and nonprescription pharmaceuticals, other physical goods such as gift items, and professional and institutional services, such as the hours a pharmacy is open. Furthermore, price or value information could be divided into monetary and quality of life value information.

Consider two pharmacy ads containing equal volumes of price and product information. One ad contains pharmaceutical physical goods and professional service goods product information and quality of life value information. This approach to advertising is typical of Prescription Pharmacy. The other ad contains predominantly school supply and gift item physical goods, institutional service good(eg. pharmacy hours) product information and price of product value information. This approach to advertising is typical of Walgreen. These ads present quite different pharmacy product information to consumers. However, these differences only can be exposed with a more refined pharmacy product information classification system than was used in this study.

Standardized measures of ad information were developed by partitioning ad information into price and product information types. Then, information bits of each type were counted to yield price and product information scores. This researcher counted all information bits and did not make adjustments for repetitive information. For instance, the physical goods ad sponsored by Bergmann's Pharmacy had a price information score of 62.0 and a product information score of 76.0. These scores were above the grand average for physical goods ads(9.6 and

15.3, respectively). The higher than grand average scores were due to repetition of information contained in a prescription pharmaceutical price chart. Refining standard measures of ad information by making adjustments for repetitive information will provide more accurate data on the information presented in pharmacy advertisements.

## CHAPTER 7

### SUMMARY AND RECOMMENDATIONS

Community pharmacy newspaper advertisements were analyzed based on types of pharmacy product information, classes of products advertised and classes of ads. Advertisements first were grouped and analyzed among community pharmacy ad sponsors. Then advertisements were grouped and analyzed according to advertisement type.

A census sample was collected of community pharmacy newspaper advertisements that appeared in Sunday and Wednesday editions of the two major local daily newspapers. Of 105 advertisements collected, 99 were included in the analysis. Advertisements represented nine community chain and independent pharmacy ad sponsors and included free-standing insert and run-of-paper newspaper ads.

A four-component ad information profile was developed to guide the collection of information contained in advertisements. The information contained in three of

these components--ad headlines, graphics and written text--was used in the analysis.

Information contained in advertisements was partitioned into two types. First, price information contains monetary value of products information. Second, product information contains product identity and feature information, but does not include price of product information. Advertised products were classified as physical goods or service goods. Based on the product classification scheme, three types of advertisements were identified. Physical goods ads contained information only about physical goods. Similarly, service goods ads contained information only about service goods. Combined physical and service goods ads contained information both about physical and service goods.

Standardized measures of information contained in advertisements were developed first by identifying information as pertaining to physical or service goods. Then, the number of bits of both types of information was computed to yield price, product and total ad information scores. Scores were computed for ad headlines, graphics, and written text components and overall for each advertisement. Price, product and total ad information average scores also were computed. These scores, and the

averages of these scores, served as the basis for comparisons among the advertisements of individual ad sponsors and among physical, service and combined physical and service goods advertisements.

Advertisements differed among sponsors according to the total number of each class of ad, the distribution of ad classes among all the ads sponsored by individual sponsors, the volume of information and the distribution of types of pharmacy product information contained in ads.

Five community pharmacy ad sponsors(Walgreen, Shopko, Prescription Pharmacy, WSA Community Pharmacy and K-MART Pharmacy), three of which were chains and two were independent pharmacies, sponsored 94.9%(n=94) of the 99 advertisements analyzed. Of these ads, 42.4%(n=42) were physical goods ads, 26.3%(n=26) were service goods ads and 31.3%(n=31) were combined physical and service goods ads. Three of the five sponsors(Walgreen, Shopko and K-MART Pharmacy) most often sponsored physical goods ads. One sponsor(Prescription Pharmacy) most often sponsored service goods ads and combined physical and service goods ads. One sponsor(WSA Community Pharmacy) most often sponsored combined physical and service goods ads.

For four of the five major ad sponsors(Walgreen, Prescription Pharmacy, WSA Community Pharmacy and K-MART

Pharmacy), their physical goods ads contained, on average, more total ad information than did their service goods and combined physical or service goods ads. For one of the five major ad sponsors(Shopko), its combined physical and service goods ads contained, on average, more total ad information than did its physical goods or service goods ads.

Among the ads of the five major ad sponsors, more product than price information was contained, on average, in physical, service and combined physical and service goods advertisements. For four of these sponsors (Walgreen, WSA Community Pharmacy and K-MART Pharmacy), their physical goods ads contained, on average, more price information than did their service goods or combined physical and service goods ads. For the fifth major ad sponsor(Prescription Pharmacy), its combined physical and service goods ads contained, on average, more price information than did its physical goods or service goods ads.

Advertisements differed among physical goods, service goods and combined physical and service goods ads according to the volume and distribution of types of information contained.

On average, combined physical and service goods

advertisements contained the most total ad information while service goods advertisements contained the least total ad information. Also on average, service goods advertisements contained about 7.4 times as much product as price information. On average, physical goods advertisements contained the smallest ratio of product to price information of the three advertisement classes.

The methods developed in this research, and the suggested refinements in the methods, could be used in several areas of future research. For instance, this study could be repeated for community pharmacy newspaper advertisements for the calendar year 1989. This would allow determination of whether the classes of ads have changed, and in what ways, in a changing health care market.

Other researchers could use the methods to study contextual aspects of community pharmacy newspaper advertisements. For example, a study could be designed to examine the effects on consumer cognitions of different patterns of product placement within ads or of different patterns of ad placement among news articles and photographs, and other advertisements.

Other applications of the methodology include, evaluation of advertisements sponsored by other health

care providers, such as Health Maintenance Organizations and hospitals. Knowledge about the nature of the advertisements of other health care providers could be used to position pharmacies as sources of health care, rather than as sources of retail goods.

Pharmacy marketers should begin to study consumer experience, partly as a product of exposure to information contained in pharmacy ads, and its relationship to consumer images of pharmacies. Researchers have developed rigorous methods for studying pharmacy patronage motives. As our knowledge about pharmacy patronage motives has increased, the sources and nature of information about pharmacy have begun to be defined.

From both the researcher's and the pharmacy marketer's perspectives, the task first is to identify sources of information about pharmacy. Second, the nature and content of this information must be defined and described. Third, consumer cognitive and behavioral responses to information must be described. Fourth, total information management guided by the framework of the Four Ps-- product, price, place and promotion--must be undertaken to elicit the desired consumer responses toward community pharmacies, pharmacy products and pharmacists.

Future research could use the results of this study to

create simulated community pharmacy newspaper advertisements. Simulated ads then could be used to study consumer attitudes toward community pharmacy newspaper advertisements.

This study is the first of a three-phase stream of research that seeks to learn more about one source of information about pharmacy; community pharmacy newspaper advertisements. Phase two, development of simulated community pharmacy newspaper ads, and phase three, experimental studies of consumer attitudes toward community pharmacy newspaper ads, could add to this base of knowledge.

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## APPENDIX A

## (21 CFR 202.1) PRESCRIPTION DRUG ADVERTISING REGULATIONS

## § 202.1

nation. The prominence of the quantitative ingredient information shall bear a reasonable relationship to the prominence of the proprietary name. (d)(1) If the advertisement employs one proprietary name or designation to refer to a combination of active ingredients present in more than one preparation (the individual preparations differing from each other as to quantities of active ingredients and/or the form of the finished preparation) and there is no established name corresponding to such proprietary name or designation, a listing showing the established names of the active ingredients shall be placed in direct conjunction with the most prominent designation of such proprietary name or designation. The prominence of this listing of active ingredients shall bear a reasonable relationship to the prominence of the proprietary name and the relationship between such proprietary name or designation, and the listing of active ingredients shall be made clear by use of such phrase as "brand of," preceding the listing of active ingredients.

(2) The advertisement shall prominently display the name of at least one specific dosage form and shall have the quantitative ingredient information required by section 502(n) of the act in direct conjunction with such display. If other dosage forms are listed in the advertisement, the quantitative ingredient information for such dosage forms shall appear in direct conjunction and in equal prominence with the most prominent listing of the names of such dosage forms.

(e) True statement of information in contraindications, and effectiveness: (1) When required. All advertisements for any prescription drug ("prescription drug" as used in this section means drugs defined in section 503(b) (1) of the act and § 201.105, applicable to drugs for use by man and veterinary drugs, respectively), except advertisements described in paragraph (e)(2) of this section, shall present a true statement of information in brief summary relating to side effects, contraindications (when used in this section "side effects, contraindications" include side effects, warnings, precautions, and contraindications and in-

## Food and Drug Administration, MMS

ignation in such running text. If any advertisement includes a column with running text containing detailed information as to composition, prescribing, side effects, or contraindications and the proprietary name or designation is used in such column but is not featured above or below the column, the established name shall be used at least once in such column of running text in association with such proprietary name or designation and in the same type size used in such column of running text: *Provided, however*, that if the proprietary name or designation is used in such column of running text in larger size type, the established name shall be used at least once in association with, and in type at least half as large as the type used for, the most prominent presentation of the proprietary name or designation in such column of running text. Where the established name is required to accompany or to be used in association with the proprietary name or designation, the established name shall be placed in direct conjunction with the proprietary name or designation, and the relationship between the proprietary name or designation and the established name shall be made clear by use of a phrase such as "brand of" preceding the established name, by brackets surrounding the established name, or by other suitable means.

(3) The established name shall be printed in letters that are at least half as large as the letters comprising the proprietary name or designation with which it is joined, and the established name shall have a prominence commensurate with the prominence of such proprietary name or designation in which it appears, taking into account all pertinent factors, including typography, layout, contrast, and other printing features.

(c) In the case of a prescription drug containing two or more active ingredients if the advertisement bears a proprietary name or designation for such mixture and there is no established name corresponding to such proprietary name or designation, the quantitative ingredient information required in the advertisement by section 502(n) of the act shall be placed in direct conjunction with the most prominent designation of the proprietary name or designation

## 21 CFR Ch. I (4-1-99 Edition)

ents on the label of the product, and the information presented in the advertisement concerning the quantity of each such ingredient shall be the same as the corresponding information on the label of the product.

(3) The advertisement shall not employ a fanciful proprietary name for the drug or any ingredient in such a manner as to imply that the drug or ingredient has some unique effectiveness or composition, when, in fact, the drug or ingredient is a common substance, the limitations of which are readily recognized when the drug or ingredient is listed by its established name.

(4) The advertisement shall not feature inert or inactive ingredients in a manner that creates an impression of value greater than their true functional role in the formulation.

(5) The advertisement shall not designate a drug or ingredient by a proprietary name that, because of similarity in spelling or pronunciation, may be confused with the proprietary name or the established name of a different drug or ingredient.

(b)(1) If an advertisement for a prescription drug bears a proprietary name or designation for the drug or any ingredient thereof, the established name, if such there be, corresponding to such proprietary name or designation shall accompany such proprietary name or designation each time it is featured in the advertisement for the drug; but, except as provided below in this subparagraph, the established name need not be used with the proprietary name or designation in the running text of the advertisement. On any page of an advertisement in which the proprietary name or designation is not featured but is used in the running text, the established name shall be used at least once in the running text in association with such proprietary name or designation and in the same type size used in the running text: *Provided, however*, that if the proprietary name or designation is used in the running text in larger size type, the established name shall be used at least once in association with, and in type at least half as large as the type used for, the most prominent presentation of the proprietary name or designation

## § 201.317

§ 201.317 Digitalis and related cardiotonic drugs for human use in oral dosage forms; required warning.

(a) Digitalis and related cardiotonic drugs for human use in oral dosage forms have been promoted for, and continue to be dispensed and prescribed for, use in the treatment of obesity, although their safety and effectiveness for that use have never been established.

(b) Digitalis and related cardiotonic drugs for human use in oral dosage forms are misbranded within the meaning of section 302 of the Federal Food, Drug, and Cosmetic Act unless their labeling bears the following boxed warning at the beginning of the "Warnings" section:

Digitalis alone or with other drugs has been used in the treatment of obesity. This use of digoxin or other digitalis glycosides is unwarranted. Moreover, since they may cause potentially fatal arrhythmias or other adverse effects, the use of these drugs in the treatment of obesity is dangerous.

(c) This section does not apply to dietary products for oral use, which shall be labeled according to the requirements of § 310.500 of this chapter.

(Secs. 502, 505, 701, 32 Stat. 1050-1053, 1054-1055, as amended (21 U.S.C. 352, 358, 371)) (43 FR 22009, May 22, 1978)

## PART 202—PRESCRIPTION DRUG

## ADVERTISING

Authority: Secs. 201(n), 502, 505, 507, 701, 32 Stat. 1041, 1050-1053, as amended, 1054-1056 as amended by 70 Stat. 919 and 72 Stat. 948, 59 Stat. 463 as amended (21 U.S.C. 321(n), 352, 355, 357, 701).

§ 202.1 Prescription-drug advertisements.

(a)(1) The ingredient information required by section 502(n) of the Federal Food, Drug, and Cosmetic Act shall appear together, without any intervening written, printed, or graphic matter, except the proprietary names of ingredients, which may be included with the listing of established names. (2) The order of listing of ingredients in the advertisement shall be the same as the order of listing of ingredi-

clude any such information under such headings as cautions, special considerations, important notes, etc.) and effectiveness. Advertisements broadcast through media such as radio, television, or telephone communications systems shall include information relating to the major side effects and contraindications of the advertised drugs in the audio or audio and visual parts of the presentation and unless adequate provision is made for dissemination of the approved or permitted package labeling in connection with the broadcast presentation shall contain a brief summary of all necessary information related to side effects and contraindications.

(3) *Exempt advertisements.* The following advertisements are exempt from the requirements of paragraph (e)(1) of this section under the conditions specified:

(i) *Reminder advertisements.* Reminder advertisements are those which call attention to the name of the drug product but do not include indications or dosage recommendations for use of the drug product. These reminder advertisements shall contain only the proprietary name of the drug product, if any; the established name of the drug product, if any; the established name of each active ingredient in the drug product; and, optionally, information relating to quantitative ingredient statements, dosage form, quantity of package contents, price, the name and address of the manufacturer, packer, or distributor or other written, printed, or graphic matter containing no representation or suggestion relating to the advertised drug product. If the Commission finds that there is evidence of significant incidence of fatalities or serious injury associated with the use of a particular prescription drug, he may withdraw this exemption by so notifying the manufacturer, packer, or distributor of the drug by letter. Reminder advertisements, other than those solely intended to convey price information including, but not limited to, those subject to the requirements of § 200.200 of this chapter, are not permitted for a prescription drug product whose labeling contains a boxed warning relating to a serious hazard associ-

ated with the use of the drug product. Reminder advertisements which are intended to provide consumers with information concerning the price charged for a prescription for a drug product are exempt from the requirements of this section if they meet all of the conditions contained in § 200.200 of this chapter. Reminder advertisements, other than those subject to the requirements of § 200.200 of this chapter, are not permitted for a drug for which an announcement has been published pursuant to a review on the labeling claims for the drug by the National Academy of Sciences/National Research Council (NAS/NRC), which no claim has been evaluated as higher than "possibly effective." If the Commissioner finds the circumstances are such that a reminder advertisement may be misleading to prescribers of drugs subject to NAS/NRC evaluation, such advertisements will not be allowed and the manufacturer, packer, or distributor will be notified either in the publication of the conclusions on the effectiveness of the drug or by letter.

(ii) *Advertisements of bulk-sale drugs.* Advertisements of bulk-sale drugs that promote sale of the drug in bulk packages in accordance with the practice of the trade solely to be processed, manufactured, labeled, or repackaged in substantial quantities and that contain no claims for the therapeutic safety or effectiveness of the drug.

(iii) *Advertisements of prescription-compounding drugs.* Advertisements of prescription-compounding drugs that promote sale of a drug for use as a prescription chemical or other compound for use by registered pharmacists in compounding prescriptions if the drug otherwise complies with the conditions for the labeling exemption contained in § 201.120 and the advertisement contains no claims for the therapeutic safety or effectiveness of the drug.

(3) *Scope of information to be included; applicability to the entire advertisement.* (i) The requirement of a true statement of information relating to side effects, contraindications, and effectiveness applies to the entire ad-

vertisement. Untrue or misleading information in any part of the advertisement will not be corrected by the inclusion in another distinct part of the advertisement of a brief statement containing true information relating to side effects, contraindications, and effectiveness of the drug. If any part or theme of the advertisement would make the advertisement false or misleading by reason of the omission of appropriate qualification or pertinent information, that part or theme shall include the appropriate qualification or pertinent information, which may be concise if it is supplemented by a prominent reference on each page to the presence and location elsewhere in the advertisement of a more complete discussion of such qualification or information.

(ii) The information relating to effectiveness is not required to include information relating to all purposes for which the drug is intended but may optionally be limited to a true statement of the effectiveness of the drug for the selected purpose(s) for which the drug is recommended or suggested in the advertisement. The information relating to effectiveness shall include specific indications for use of the drug for purposes claimed in the advertisement; for example, broad claim that a drug is an antibacterial agent, the advertisement shall name a type or types of infections and microorganisms for which the drug is effective clinically as specifically as required, approved, or permitted in the drug package labeling.

(iii) The information relating to side effects and contraindications shall disclose each specific side effect and contraindication (which include side effects, warnings, precautions, and contraindications and include any such information under such headings as cautions, special considerations, important notes, etc.; see paragraph (e)(1) of this section) contained in required, approved, or permitted labeling for the advertised drug dosage form(s). *Provided, however,*

(a) The side effects and contraindications disclosed may be limited to those pertinent to the indications for which the drug is recommended or

suggested in the advertisement to the extent that such limited disclosure has previously been approved or permitted in drug labeling conforming to the provisions of §§ 201.100 or 201.105; and

(b) The use of a single term for a group of side effects and contraindications (for example, "blood dyscrasias" for disclosure of "leukopenia," "agranulocytosis," and "neutropenia") is permitted only to the extent that the use of such a single term in place of disclosure of each specific side effect and contraindication has been previously approved or permitted in drug labeling conforming to the provisions of §§ 201.100 or 201.105.

(4) *Substance of information to be included in brief summary.* (i) (a) An advertisement for a prescription drug covered by a new-drug application approved pursuant to section 505 of the act after October 10, 1962 or section 512 of the act after August 1, 1969, or any approved supplement thereto, shall not recommend or suggest any use that is not in the labeling accepted in such approved new-drug application or supplement. The advertisement shall present information from labeling required, approved, or permitted in a new-drug application relating to each specific side effect and contraindication in such labeling that relates to the uses of the advertised drug dosage form(s) or shall otherwise conform to the provisions of paragraph (e)(3)(iii) of this section.

(b) If a prescription drug was covered by a new-drug application or a supplement thereto that became effective prior to October 10, 1962, an advertisement may recommend or suggest:

(1) Uses contained in the labeling accepted in such new-drug application and any effective, approved, or permitted supplement thereto.

(2) Additional uses contained in labeling in commercial use on October 9, 1962, to the extent that such uses did not cause the drug to be an unapproved "new drug" as "new drug" was defined in section 201(p) of the act as then in force, and to the extent that such uses would be permitted were the drug subject to paragraph (e)(4)(iii) of this section.

tains literature references or quotations that are significantly more favorable to the drug than has been demonstrated by substantial evidence or substantial clinical experience.

(iv) Contains a representation or suggestion that a drug is safer than it has been demonstrated to be by substantial evidence or substantial clinical experience, by selective presentation of information from published articles or other references that report no side effects or minimal side effects with the drug or otherwise selects information from any source in a way that makes a drug appear to be safer than has been demonstrated.

(v) Presents information from a study in a way that implies that the study represents larger or more general experience with the drug than it actually does.

(vi) Contains references to literature or studies that misrepresent the effectiveness of a drug by failure to disclose that claimed results may be due to concomitant therapy, or by failure to disclose the credible information available concerning the extent to which claimed results may be due to placebo effect (information concerning placebo effect is not required unless the advertisement promotes the drug for use by man).

(vii) Contains favorable data or conclusions from nonclinical studies of a drug, such as in laboratory animals or in vitro, in a way that suggests they have clinical significance when in fact no such clinical significance has been demonstrated.

(viii) Uses a statement by a recognized authority that is apparently favorable about a drug but fails to refer to concurrent or more recent unfavorable data or statements from the same authority on the same subject or subjects.

(ix) Uses a quote or paraphrase out of context to convey a false or misleading idea.

(x) Uses literature, quotations, or references that purport to support an advertising claim but in fact do not support the claim or have relevance to the claim.

(xi) Uses literature, quotations, or references for the purpose of recommending or suggesting conditions of

and this information is not fairly balanced by a presentation of a summary of true information relating to side effects and contraindications of the drug. *Provided, however*, That no advertisement shall be considered to be in violation of this section if the presentation of true information relating to side effects and contraindications is comparable in depth and detail with the claims for effectiveness or safety.

(iii) It fails to reveal facts material in the light of its representations or material with respect to consequences that may result from the use of the drug as recommended or suggested in the advertisement.

(8) *Advertisements that are false, lacking in fair balance, or otherwise misleading.* An advertisement for a prescription drug is false, lacking in fair balance, or otherwise misleading if it otherwise violates of section 302(n) of the act, among other reasons, if it:

(i) Contains a representation or suggestion, not approved or permitted for use in the labeling, that a drug is better, more effective, useful in a broader range of conditions or patients (as used in this section "patients" means humans and in the case of veterinary drugs, other animals), safer, has fewer, or less incidence of, or less serious side effects or contraindications than has been demonstrated by substantial evidence or substantial clinical experience (as described in paragraphs (e)(4)(iii) (b) and (c) of this section) whether or not such representations are made by comparison with other drugs or treatments, and whether or not such a representation or suggestion is made directly or through use of published or unpublished literature, quotations, or other references.

(ii) Contains a drug comparison that represents or suggests that a drug is safer or more effective than another drug in some particular when it has not been demonstrated to be safer or more effective in such particular by substantial evidence or substantial clinical experience.

(iii) Contains favorable information or opinions about a drug previously regarded as valid but which have been rendered invalid by contrary and more credible recent information, or con-

canance" mean in the case of drugs intended for administration to man, investigations, experience, or significance in humans and in the case of drugs intended for administration to other animals, investigations, experience, or significance in the species or species for which the drug is advertised), by experts qualified by scientific training and experience to evaluate the safety and effectiveness of the drug involved, on the basis of which it can fairly and responsibly be concluded by such experts that the drug is safe and effective for such uses; or

(c) For which there exists substantial clinical experience (as used in this section this means substantial clinical experience adequately documented in medical literature or by other data (to be supplied to the Food and Drug Administration, if requested), on the basis of which it can fairly and responsibly be concluded by qualified experts that the drug is safe and effective for such uses; or

(d) For which safety is supported under any of the preceding clauses in paragraphs (e)(4)(iii) (a), (b), and (c) of this section and effectiveness is supported under any other of such clauses.

The advertisement shall present information relating to each specific side effect and contraindication that is required, approved, or permitted in the package labeling by §§ 201.100 or 201.105 of this chapter of the drug dosage form(s) or shall otherwise conform to the provisions of paragraph (e)(3)(iii) of this section.

(5) *"True statement" of information.* An advertisement does not satisfy the requirement that it present a "true statement" of information in brief summary relating to side effects, contraindications, and effectiveness if:

(i) It is false or misleading with respect to side effects, contraindications, or effectiveness; or

(ii) It fails to present a fair balance between information relating to side effects and contraindications and information relating to effectiveness of the drug in that the information relating to effectiveness is presented in greater scope, depth, or detail than is required by section 302(n) of the act

(3) Additional uses contained in labeling in current commercial use to the extent that such uses do not cause the drug to be an unapproved "new drug" as defined in section 201(p) of the act as amended or a "new animal drug" as defined in section 201(w) of the act as amended.

The advertisement shall present information from labeling required, approved, or permitted in a new-drug application relating to each specific side effect and contraindication in such labeling that relates to the uses of the advertised drug dosage form(s) or shall otherwise conform to the provisions of paragraph (e)(3)(iii) of this section.

(ii) An advertisement for a prescription drug subject to certification under section 507 or 512 of the act shall not recommend or suggest any use that is not in the labeling covered by the certification or the applicable certification regulations or regulations providing for exemption from certification. The advertisement shall present information from such labeling covered by the certification or the applicable certification regulations or regulations providing for exemption from certification, relating to each specific side effect and contraindication in such labeling and such regulations for the advertised drug dosage form(s) or shall otherwise conform to the provisions of paragraph (e)(3)(iii) of this section.

(iii) In the case of an advertisement for a prescription drug other than a drug the labeling of which causes it to be an unapproved "new drug" and other than drugs covered by paragraphs (e)(4)(i) and (ii) of this section, an advertisement may recommend and suggest the drug only for those uses contained in the labeling thereof.

(c) For which the drug is generally recognized as safe and effective among experts qualified by scientific training and experience to evaluate the safety and effectiveness of such drugs; or

(b) For which there exists substantial evidence of safety and effectiveness, consisting of adequate and well-controlled investigations, including clinical investigations (as used in this section "clinical investigations," "clinical experience," and "clinical signifi-

drug use that are not approved or permitted in the drug package labeling.

(xvii) Offers a combination of drugs for the treatment of patients suffering from a condition amenable to treatment by any of the components rather than limiting the indications for use to patients for whom concomitant therapy as provided by the fixed combination drug is indicated, unless such condition is included in the uses permitted under paragraph (e)(4) of this section.

(xviii) Uses a study on normal individuals without disclosing that the subjects were normal, unless the drug is intended for use on normal individuals.

(xix) Uses "statistics" on numbers of patients, or counts of favorable results or side effects, derived from pooling data from various insignificant or dissimilar studies in a way that suggests either that such "statistics" are valid if they are not or that they are derived from large or significant studies supporting favorable conclusions when such is not the case.

(xx) Uses erroneously a statistical finding of "no significant difference" to claim clinical equivalence or to deny or conceal the potential existence of a real clinical difference.

(xxi) Uses statements or representations that a drug differs from or does not contain a named drug or category of drugs, or that it has a greater potency per unit of weight, in a way that suggests falsely or misleadingly or without substantial evidence or substantial clinical experience that the advertised drug is safer or more effective than such other drug or drugs.

(xxii) Uses data favorable to a drug derived from patients treated with dosages different from those recommended in approved or permitted labeling if the drug advertised is subject to section 505, 507, or 512 of the act, or, in the case of other drugs, if the dosages employed were different from those recommended in the labeling and generally recognized as safe and effective. This provision is not intended to prevent citation of reports of studies that include some patients treated with dosages different from those authorized, if the results in such patients are not used.

(xviii) Uses headline, subheadline, or pictorial or other graphic matter in a way that is misleading.

(xix) Represents or suggests that drug dosages properly recommended for use in the treatment of certain classes of patients or disease conditions are safe and effective for the treatment of other classes of patients or disease conditions when such is not the case.

(xx) Presents required information relating to side effects or contraindications by means of a general term for a group in place of disclosing each specific side effect and contraindication (for example employs the term "blood dyscrasias," instead of "leukopenia," "agranulocytosis," "neutropenia," etc.) unless the use of such general term conforms to the provisions of paragraph (e)(3)(iii) of this section.

*Provided, however,* That any provision of this paragraph shall be waived with respect to a specified advertisement as set forth in a written communication from the Food and Drug Administration on a petition for such a waiver from a person who would be adversely affected by the enforcement of such provision on the basis of a showing that the advertisement is not false, lacking in fair balance, or otherwise misleading, or otherwise violative of section 502(n) of the act. A petition for such a waiver shall set forth clearly and concisely the petitioner's interest in the advertisement, the specific provision of this paragraph from which a waiver is sought, a complete copy of the advertisement, and a showing that the advertisement, and a false, lacking in fair balance, or otherwise misleading, or otherwise violative of section 502(n) of the act.

(7) *Advertisements that may be false, lacking in fair balance, or otherwise misleading.* An advertisement may be false, lacking in fair balance, or otherwise misleading or otherwise violative of section 502(n) of the act if:

(i) Contains favorable information or conclusions from a study that is inadequate in design, scope, or conduct to furnish significant support for such information or conclusions.

(ii) Uses the concept of "statistical significance" to support a claim that

has not been demonstrated to have clinical significance or validity, or falls to reveal the range of variations around the quoted average results.

(iii) Uses statistical analyses and techniques on a retrospective basis to discover and cite findings not soundly supported by the study, or to suggest scientific validity and rigor for data from studies the design or protocol of which are not amenable to formal statistical evaluations.

(iv) Uses tables or graphs to distort or misrepresent the relationships, trends, differences, or changes among the variables or products studied; for example, by failing to label axes and ordinate so that the graph creates a misleading impression.

(v) Uses reports or statements represented to be statistical analyses, interpretations or evaluations that are inconsistent with or violate the established principles of statistical theory, methodology, applied practice, and inference, or that are derived from clinical studies the design, data, or conduct of which substantially invalidate the application of statistical analyses, interpretations, or evaluations.

(vi) Contains claims concerning the mechanism or site of drug action that are not generally regarded as established by scientific evidence by experts qualified by scientific training and experience without disclosing that the claims are not established and the limitations of the supporting evidence.

(vii) Falls to provide sufficient emphasis for the information relating to side effects and contraindications, when such information is contained in a distinct part of an advertisement, because of repetition or other emphasis in that part of the advertisement of claims for effectiveness or safety of the drug.

(viii) Falls to present information relating to side effects and contraindications with a prominence and readability reasonably comparable with the presentation of information relating to effectiveness of the drug, taking into account all implementing factors such as typography, layout, contrast, headlines, paragraphing, white space, and any other techniques apt to achieve emphasis.

(ix) Falls to provide adequate emphasis (for example, by the use of color scheme, borders, headlines, or copy that extends across the gutter) for the fact that two facing pages are part of the same advertisement when one page contains information relating to side effects and contraindications.

(x) In an advertisement promoting use of the drug in a selected class of patients (for example, geriatric patients or depressed patients), falls to present with adequate emphasis the significant side effects and contraindications or the significant dosage considerations, when dosage recommendations are included in an advertisement, especially applicable to that selected class of patients.

(xi) Falls to present on a page facing another page (or on another full page) of an advertisement on more than one page, information relating to side effects and contraindications when such information is in a distinct part of the advertisement.

(xii) Falls to include on each page or spread of an advertisement the information relating to side effects and contraindications or a prominent reference to its presence and location when it is presented as a distinct part of an advertisement.

(xiii) Contains information from published or unpublished reports or opinions falsely or misleadingly represented or suggested to be authentic or authoritative.

(7)-(f) (Reserved)

(j)(1) No advertisement concerning a particular prescription drug may be disseminated without prior approval by the Food and Drug Administration if:

(i) The sponsor or the Food and Drug Administration has received information that has not been widely publicized in medical literature that the use of the drug may cause fatalities or serious damage;

(ii) The Commissioner (or in his absence the officer acting as Commissioner), after evaluating the reliability of such information, has notified the sponsor that the information must be a part of the advertisements for the drug; and

(iii) The sponsor has failed within a reasonable time as specified in such

notification to present to the Food and Drug Administration a program, adequate in light of the nature of the information, for assuring that such information will be publicized promptly and adequately to the medical profession in subsequent advertisements.

If the Commissioner finds that the program presented is not being followed, he will notify the sponsor that prior approval of all advertisements for the particular drug will be required. Nothing in this paragraph is to be construed as limiting the Commissioner's or the Secretary's rights, as authorized by law, to issue publicity, to suspend any new-drug application, to decertify any antibiotic, or to recommend any regulatory action.

(2) Within a reasonable time after information concerning the possibility that a drug may cause fatalities or serious damage has been widely publicized in medical literature, the Food and Drug Administration shall notify the sponsor of the drug by mail that prior approval of advertisements for the drug is no longer necessary.

(3) Dissemination of an advertisement in compliance with this paragraph shall be deemed to be an act that causes the drug to be misbranded under section 502(n) of the act.

(4) Any advertisement may be submitted to the Food and Drug Administration prior to publication for comment. If the advertiser is notified that the submitted advertisement is not in violation and, at some subsequent time, the Food and Drug Administration changes its opinion, the advertiser will be so notified and will be given a reasonable time for correction before any regulatory action is taken under this section. Notification to the advertiser that a proposed advertisement is or is not considered to be in violation shall be in written form.

(5) The sponsor shall have an opportunity for a regulatory hearing before the Food and Drug Administration pursuant to Part 16 of this chapter with respect to any determination that prior approval is required for advertisements concerning a particular prescription drug, or that a particular advertisement is not approvable.

(b) Represents or suggests that a prescription drug is safer or more effective than another drug in some particular when the difference has not been demonstrated by substantial evidence. An advertisement for a prescription drug may not, either directly or by implication, e.g., by use of comparative test data or reference to published reports, represent that the drug is safer or more effective than another drug, not may an advertisement contain a quantitative statement of safety or effectiveness (e) unless the representation has been approved as part of the labeling in a new drug or antibiotic application or biologic license, or (b) if the drug is not a new drug or a certified or released antibiotic, or biologic, unless the representation of safety or effectiveness is supported by substantial evidence derived from adequate and well-controlled studies as defined in § 314.111(a)(5)(XII) of this chapter, or unless the requirement for adequate and well-controlled studies is waived as provided in § 314.111(a)(5)(XII) of this chapter.

(vii) Suggests, on the basis of favorable data or conclusions from nonclinical studies of a prescription drug, such as studies in laboratory animals or in vitro, that the studies have clinical significance, if clinical significance has not been demonstrated. Data that demonstrate activity or effectiveness for a prescription drug in animal or in vitro tests and have not been shown by adequate and well-controlled clinical studies to pertain to clinical use may be used in advertising except that (e), in the case of anti-fertile drugs, in vitro data may be included in the advertisement, if data are immediately preceded by the statement "The following in vitro data are available but their clinical significance is unknown" and (b), in the case of other drug classes, in vitro and animal data that have not been shown to pertain to clinical use may be used in well-controlled clinical studies as defined in § 314.111(a)(5)(XII) of this chapter may not be used unless the requirement for adequate and well-controlled studies is waived as provided in § 314.111(a)(5)(XII) of this chapter.

(Secs. 502, 503, 505, 506, 507, 701, 52 Stat. 1050-1053 as amended, 1055-1056 as amended, 59 Stat. 851, 59 Stat. 463 as amended (21 U.S.C. 352, 353, 355, 356, 357, 371), sec. 351, 58 Stat. 702, as amended (42 U.S.C. 2621))

(e) . . .

PART 207—REGISTRATION OF PRODUCERS OF DRUGS AND LISTING OF DRUGS IN COMMERCIAL DISTRIBUTION

Subject A—General

207.3 Definitions. Establishing registration and product listing of human blood and blood products and for medical devices.

Subject B—Exemptions

207.10 Exemptions for domestic establishments.

Subject C—Procedures for Domestic Drug Establishments

207.20 Who must register and submit a drug list.

207.21 Times for registration and drug listing.

207.22 How and where to register and list drugs.

207.23 Information required in registration and drug listing.

207.26 Amendments to registration.

207.30 Updating drug listing information.

207.31 Additional drug listing information.

207.35 Notification of registrant, drug establishment registration number and drug listing number.

207.37 Inspection of registrations and drug listings.

207.39 Misbranding by reference to registration or to registration number.

Subject D—Procedures for Foreign Drug Establishments

207.40 Drug listing requirements for foreign drug establishments.

Authority: Secs. 201, 502, 505, 506, 507, 510, 512, 701(a), 704, Pub. L. 717, 52 Stat. 1040-1042 as amended, 1050-1053 as amended, 1053, 1057 as amended, 82 Stat. 845-849, 21 U.S.C. 321, 342, 343, 345, 346, 347, 348, 349, 351, 352, 353, 355, 356, 357, 371, 410, 58 Stat. 702, as amended (42 U.S.C. 262); 21 CFR 5.10, 5.11.

Source: 45 FR 38043, June 6, 1980, unless otherwise noted.

Subject A—General

§ 207.3 Definitions.

(a) The following definitions apply to this part:

(21 CFR 200.200) PRESCRIPTION DRUG CONSUMER PRICE LISTING

Part 201

**Sec. Subject C—Labeling Requirements for Over-the-Counter Drugs**  
 201.80 Principal display panel.  
 201.81 Statement of identity.  
 201.82 Declaration of net quantity of contents.  
 201.83 Pregnancy-nursing warning.

**Subject D—Exemptions from Adequate Directions for Use**  
 201.100 Prescription drugs for human use.  
 201.105 Veterinary drugs.  
 201.110 Retail exemption for veterinary drugs.  
 201.115 New drugs or new animal drugs.  
 201.116 Drugs having commonly known directions.  
 201.117 Inactive ingredients.  
 201.119 In vitro diagnostic products.  
 201.120 Prescription chemicals and other prescription components.  
 201.122 Drugs for processing, repackaging, or manufacturing.  
 201.125 Drugs for use in teaching, law enforcement, research, and analysis.  
 201.127 Drugs; expiration of exemptions.  
 201.128 Meaning of "intended uses".  
 201.129 Drugs; exemption for radioactive drugs for research use.

**Subject E—Other Exemptions**  
 201.150 Drugs; processing, labeling, or repackaging.  
 201.181 Carbon dioxide and certain other gases.

**Subject F—Labeling Claims for Drugs in Drug Efficacy Study**  
 201.200 Disclosure of drug efficacy study evaluations in labeling and advertising.

**Subject G—Specific Labeling Requirements for Specific Drug Products**  
 201.300 Notice to manufacturers, packers, and distributors of glandular preparations.  
 201.301 Notice to manufacturers, packers, and distributors of estrogenic hormone preparations.  
 201.302 Notice to manufacturers, packers, and distributors of drugs for internal use which contain mineral oil.  
 201.303 Labeling of drug preparations containing significant proportions of wintergreen oil.  
 201.304 Tannic acid and barium enema preparations.  
 201.305 Isoproterenol inhalation preparations (pressurized aerosols, nebulizers, powders) for human use; warnings.

Feed and Drug Administration, MHS

(c) Any reminder advertisement or reminder labeling intended to provide information with prescription price information which is not in compliance with this section shall be the subject of appropriate regulatory action. Such action may be taken against the producer and/or the responsible person.  
 (Secs. 201(m), 502, 701(a), 52 Stat. 1041, 1050-1051 as amended by 78 Stat. 791, 1055; (21 U.S.C. 321(n), 352, 371(a))  
 (40 FR 53799, Dec. 18, 1975)

PART 201—LABELING

Subject A—General Labeling Provisions

**Sec.**  
 201.1 Drugs; name and place of business of manufacturer, packer, or distributor.  
 201.2 Drugs and devices; National Drug Code numbers.  
 201.5 Drugs; adequate directions for use.  
 201.6 Drugs; misleading statements.  
 201.10 Drugs; statement of ingredients.  
 201.15 Drugs; prominence of required label statements.  
 201.16 Drugs; Spanish-language version of certain required statements.  
 201.17 Drugs; location of expiration date.  
 201.18 Drug; significance of control numbers.  
 201.19 Drug; use of term "Infant".  
 201.20 Declaration of presence of FD&C Yellow No. 5 and/or FD&C Yellow No. 6 in certain drugs for human use.  
 201.21 Declaration of presence of phenylalanine as a component of aspartame in over-the-counter and prescription drugs for human use.  
 201.22 Prescription drugs containing sulfites; required warning statements.

Subject B—Labeling Requirements for Prescription Drugs and/or Inhalants

201.30 Statement of identity.  
 201.31 Declaration of net quantity of contents.  
 201.35 Statement of dosage.  
 201.36 General requirements on content and format of labeling for human prescription drugs.  
 201.37 Specific requirements on content and format of labeling for human prescription drugs.  
 201.38 Request for waiver of requirement for adequate and well-controlled studies to substantiate certain labeling statements.  
 201.39 Effective date of §§201.36, 201.37, 201.100(d)(3), and 201.100(e).

21 CFR Ch. I (4-1-39 Edition)

(1) The only purpose of the reminder or advertisement or reminder labeling is to provide consumers with information concerning the price charged for a particular drug product, and the reminder advertisement or reminder labeling contains no representation or suggestion concerning the drug product's safety, effectiveness, or indications for use.  
 (2) The reminder advertisement or reminder labeling contains the proprietary name of the drug product, if any; the established (generic) name of the drug product, if any; the drug product's strength, if any; the product contains a single active ingredient or if the product contains more than one active ingredient and a relevant strength may be associated with the product without indicating each active ingredient (the established name and quantity of each active ingredient are not required); the dosage form; and the price charged for a prescription for a specific quantity of the drug product.  
 (3) The reminder advertisement or reminder labeling may also include other written, printed, or graphic matter, e.g., identification of professional or convenience services provided by the pharmacy; *Provided*, That such information is neither false nor misleading and contains no representation or suggestion concerning the drug product's safety, effectiveness, or indications for use.  
 (4) The price stated in the reminder advertisement or reminder labeling as that charged for a prescription shall include all charges to the consumer including, but not limited to, the cost of the drug product, professional fees and handling fees, if any. Mailing fees and delivery fees, if any, may be stated separately and without repetition.

(b) This exemption from §§ 201.100 and 202.1 of this chapter is applicable to all prescription drug reminder labeling and reminder advertisements solely intended to provide consumers with information regarding the price charged for prescriptions including price lists, catalogs, and other promotional material, whether mailed, posted in a pharmacy, placed in a newspaper, or aired on radio or television.

§ 200.101

Suprarenal glands from hog carcasses prior to final inspection.

(a) The Agricultural Research Service of the U.S. Department of Agriculture has informed the Food and Drug Administration of the Department of Health and Human Services that, under appropriate conditions, it will permit the removal of suprarenal glands from hogs that have not been finally inspected by Federal inspectors. The glands to be so obtained are intended for use in manufacturing extracts containing one or more of the therapeutically useful constituents of suprarenal glands.  
 (b) Under the conditions specified in this section, the Secretary of Health and Human Services has determined that the public health will be adequately protected from any danger from the use of drugs, made in whole or in part from suprarenal glands of hogs that may be condemned by Federal inspectors of the Department of Agriculture after removal of such glands from the carcasses, arising from any abnormality of such carcasses if such glands are subjected to the following prescribed treatment, which will destroy or eliminate any microorganisms or toxins that might be present in the glands:  
 (c) The glands are subjected to quick freezing promptly upon removal from the carcasses and maintained in a frozen state until they are ground and immersed in 95 percent to 100 percent acetone. The ground tissues remain in the acetone for a period of not less than 6 days, the mixture is filtered, and the residue is burned.

**Subject E—Prescription Drug Consumer Price Listing**

§ 200.200 Prescription drugs; reminder advertisements and reminder labeling to provide price information to consumers.  
 (a) Prescription drug reminder advertisements and reminder labeling intended to provide price information to consumers are exempt from the requirements of §§ 201.100 and 202.1 of this chapter if all of the following conditions are met:

APPENDIX C

REPRESENTATIVE COMMUNITY PHARMACY NEWSPAPER AD

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**Trust us  
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prices.**



Low everyday prices on name brand pharmaceuticals and even greater savings on generic equivalents!

- Computerized Prescription Service for faster service and complete accuracy with every prescription filled.
- 24-Hour Emergency Service You'll find our pharmacists' phone numbers posted. Take note for emergencies.
- Patient Medical Records are kept of all medication you buy, available upon request at income tax time.
- Open 7 Days a Week for your convenience. Mon. thru Fri. 9 am-9 pm, Sat. 9 am-6 pm and Sun. 10 am-6 pm.

**Shopko COUPON**

**\$2 off**

Your next new, refilled or transferred prescription. Limit 1 per family.

Name \_\_\_\_\_  
Address \_\_\_\_\_

Coupon good only at Shopko Pharmacies, Madison  
Coupon good thru Sat., June 11, 1983

SHOPKO STORES, INC.  
2697 SHOPKO DRIVE MADISON  
7401 WINE HILL POINT ROAD, MADISON  
2101 W BROADWAY, MONONA

248-8919  
833-ARJ2  
222-7088

Coupon good thru Sat., June 11.  
We reserve the right to limit quantities.

Hours: Mon-Fri 9 AM to 10 PM Sat 9 AM to 9 PM, Sun 10 AM to 6 PM.

**APPENDIX D****ADVERTISEMENT INFORMATION CLASSIFICATION**

## Price Information

Any information which refers to the monetary value of any of the products advertised.

## Examples:

Lowest prescription prices in town.  
Everyday low prices.  
Save money with generics.  
Free mail-out service.  
We won't be knowingly undersold.  
We want to help you lower your prescription costs.  
Coupon sale.  
Discount prescription center.

## Product Information

Any information which refers to the identity, or any feature of a product, but which does not include monetary value information.

## Examples:

Fine quality pharmaceuticals.  
We stock name brand, private label and generic pharmaceuticals.  
100 count Bayer Aspirin for fast pain relief.  
Consumer Testing Laboratories seal of approval.  
Brand names you know and trust.  
Pharmacists will answer your health care questions.  
Fast, friendly service.

**APPENDIX E****PHARMACY PRODUCTS ADVERTISED****Physical Goods Products:**

Tangible objects that meet certain standards of production (eg. quality or size standards); are produced and stored prior to consumption or use; generally have a long channel of distribution (eg. manufacturer-wholesaler-provider-patient).

**Examples:**

Pharmaceuticals-prescription and nonprescription.  
Diabetic supplies-syringes, alcohol swabs,  
lancets, blood and urine glucose test kits.  
Medical equipment and supplies-blood pressure  
meters, heating pads, hearing aids, support  
hosiery, ostomy products, orthopedic  
appliances, prostheses.  
Foot care products-corn and bunion pads and  
removers.  
Prescription Emergency Prescription Card.  
Oxygen and physical therapy equipment.

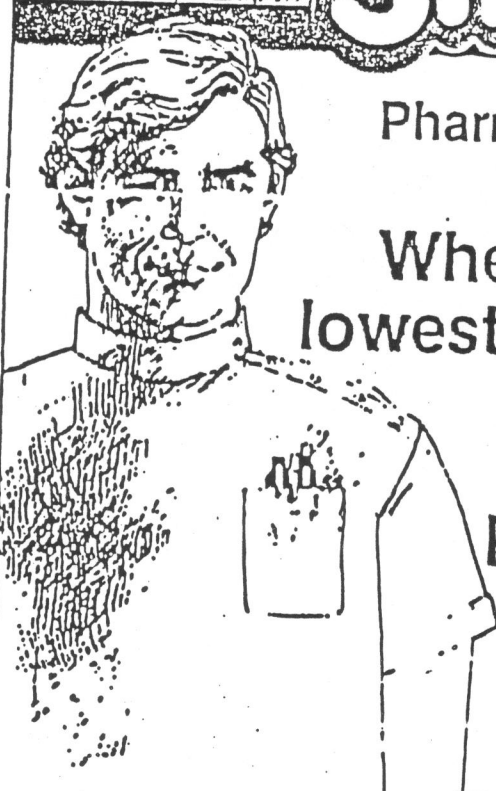
**Service Goods Products:**

Intangible, people-based efforts; not as standardized as physical goods; are produced and consumed when delivered; generally have a short channel of distribution (eg. provider-patient).

**Examples:**


Review of patient medication records.  
Emergency prescription service.  
Prescription transfer services.  
Pharmacists providing health care information.  
Pharmacists professional consultation.  
Pharmacists recommend health care products.  
Prescription mail-out service.  
Provision of poison prevention materials.  
Hearing aid testing and fitting.  
Ostomy in-service.

APPENDIX F  
EXAMPLE PHYSICAL GOODS ADVERTISEMENT



# Shopko

Pharmacy



Where are the  
lowest Rx prices  
in town?  
Shopko  
Pharmacy!

We give you proof  
of our everyday low  
pharmacy prices.

We're confident our prescription  
prices are the lowest in town.  
So we stand behind this claim  
with the following offer:

If the prescription you have filled at  
Shopko Pharmacy costs more than what you  
paid to have it filled at another pharm-  
acy, we'll pay you double the difference.

Shopko Pharmacy offers low prices:

- Lower than senior citizen discount programs
- Lower than union programs
- Lower than mail-order programs

Shopko

Double your  
money back...

on the difference if we fill your  
prescription at a higher price than  
what you paid at another pharmacy

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

Shopko Pharmacy is not responsible for the accuracy of the information provided in this coupon. Proof of purchase required. Offer good only in the United States.

Expires good only at Shopko Pharmacy  
Coupon good thru Sat., June 30, 1991

SHOPKOPHARMACY, INC.

APPENDIX G  
EXAMPLE SERVICE GOODS ADVERTISEMENT

facturers persist in importing auto parts, ensuring the continual unemployment of over one half million people, where's the remedy?"

The UAW is also angry at General Motors for its Japanese strategy. General Motors wants to import some 300,000 small cars and sell them with its nameplate. So GM wants a higher, not a lower, voluntary quota on Japanese imports to accommodate the additional cars it wishes to bring into this country. Ford and Chrysler lobbyists oppose both the domestic content bill and the GM strategy. They claim it would sabotage their delicate negotiations with Japanese auto firms for joint U.S.-Japan assembly plants to be built here.

GM is also planning such a joint venture with Toyota in California, pending approval by the Federal Trade Commission.

If the Japanese car makers back out of these negotiations and GM follows its import strategy, all small cars sold in the United States would be built in Japan, the union warns.

Urged Ambassador Brock to negotiate with the Japanese a new two-year extension of the voluntary quota. Less than that, Bieber wrote Brock, "not only provides little impetus for Japanese investment here, but also encourages U.S. automakers to move production abroad."

relative hearings

ing to use a pesticide to control bats would have to obtain permits from the Pesticide Review Board.

The committee hearing will be held Wednesday in room 421 south in the Capitol.

Another measure, A11779, to permit unaccompanied minors to be on the premises of a trailer camp with relatives. Brock will be heard Tuesday by the Assembly Excise and Fees Committee in room 421 southeast at 10:30 a.m.

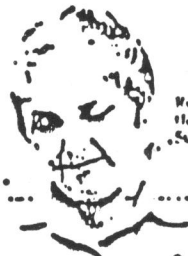
# The Prescription Pharmacy, Personal Service... and Ruth Ann Jay.

Professionalism, dedication and sensitivity make medical support and appliance nurse, Ruth Ann Jay, a valuable part of our health care staff.

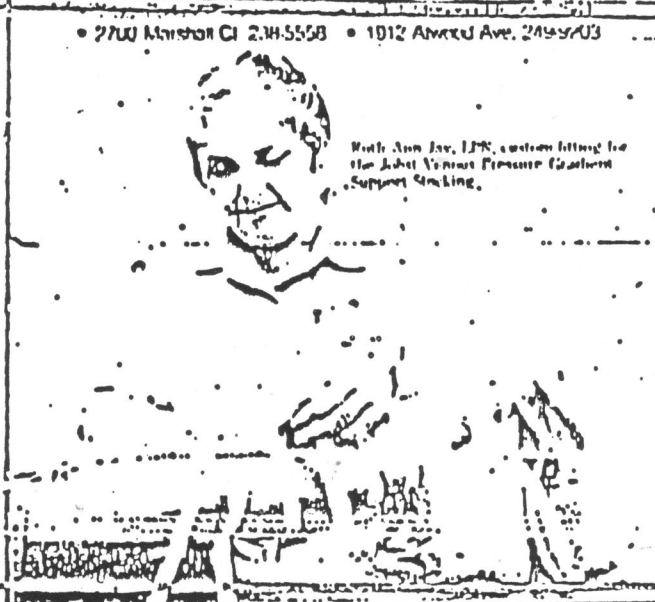
Her personal service and professional recommendations regarding your surgical and orthopedic appliances, trusses and breast prostheses may be the answer to your health care needs.

THE  
PRESCRIPTION PHARMACY  
INCORPORATED

• 2700 Mission Ct. 234-5558 • 1012 Annet Ave. 249-9703



Ruth Ann Jay, DPM, a nurse fitting for the Left Ventricle Pressure Catheter Support Sling.



APPENDIX H  
 EXAMPLE COMBINED PHYSICAL AND SERVICE GOODS ADVERTISEMENT

# Shopko Pharmacy

has filled over 10 million prescriptions chain-wide

- Fine quality pharmaceuticals
- Everyday low prices
- Fast, friendly service
- Big savings on generic drugs
- Patient medication records
- 24-hour emergency service
- Open 7 days a week
- Conveniently located

**1.69 SALE**  
 Shopko Brand Aspirin  
 500 tablets of 5 gram aspirin

**2.49 SALE**  
 Decolorizing Extra S  
 Choice of 20-cl. reg. caffeine-free or 16-cl. min. appetite control

**1.49 SALE**  
 100-cl. Bayer-Aspirin  
 For fast, effective relief of pain of headaches, fever, 100% pure aspirin

**6.99 SALE**  
 30 FREE WITH 100  
 130-cl. Centrum Tablets  
 High potency multi-vitamin/multi-mineral formula. Has every vitamin & mineral for complete nutrition.

**1.99 SALE**  
 Durallon Nasal  
 5-oz. Up to 12 hours from nasal congestion, fever, head colds, etc.

APPENDIX I  
AD INFORMATION PROFILE

Name of Pharmacy: \_\_\_\_\_ Ad Number: \_\_\_\_\_

I. HEADLINE:

II. GRAPHICS:

III. WRITTEN TEXT:

IV. OTHER:

SLOGAN:

LOGO:

PHARMACY LOCATIONS, HOURS, TELEPHONE NUMBER

TYPE ADVERTISEMENT \_\_\_\_\_

**APPENDIX J**  
**AD ANALYSIS SCORE SHEET**

Walgreen Ad Analysis Score Sheet

HEADLINE:

<u>Ad No.</u>	<u>Headline</u>	<u>Price Info.</u>	<u>Product Info.</u>	<u>Headline Score</u>
1	Double your money back offer	1	0	1

GRAPHICS:

<u>Ad No.</u>	<u>Graphics</u>	<u>Price Info</u>	<u>Product Info.</u>	<u>Graphics Score</u>
1	Coupon: get double your money back on the difference if we fill your Rx at a higher price than you paid at another pharmacy OTC product shown	11	1	3

WRITTEN TEXT:

<u>Ad No.</u>	<u>Written Text</u>	<u>Price Info.</u>	<u>Product Info.</u>	<u>Written Text Score</u>
1	If Walgreen Rx costs more than competitors', we'll double your money back. We will not be knowingly under-sold. Name and strength of OTC	111	11	5

OVERALL AD SCORES

<u>Ad No.</u>	<u>Price Info.</u>	<u>Product Info.</u>	<u>Total Ad Score</u>
1	6	3	9

## APPENDIX K

## SAMPLE COMPUTATIONS

## Information Scores

Walgreen Physical Goods Ads

<u>Ad Component</u>	Information Scores			
	<u>Price</u>		<u>Product</u>	<u>Total</u>
Ad headlines	20	+	12	= 32
Graphics	+25	+	+68	= +93
Written Text	<u>+32</u>	+	<u>+71</u>	= <u>+103</u>
Total Information Scores for 18 ads	77	+	151	= 228

## Average Information Scores

<u>Walgreen Physical Goods Ads</u>	<u>No. Ads</u>	Average Information Scores
Price information bits	77 / 18	= 4.3
Product information bits	151 / 18	= 8.4
Total ad information bits	228 / 18	= 12.7

## Grand Average Information Scores

<u>Physical Goods Ads</u>	<u>No. Ads</u>	Grand Ave. Information Scores
Price information bits	406 / 42	= 9.6
Product information bits	641 / 42	= 15.3
Total ad information bits	1047 / 42	= 24.9

## Product to Price Information Ratios

## Physical Goods Ads

$$\frac{\text{Total Product Information Bits}}{\text{Total Price Information Bits}} = \text{Ratio}$$

$$\frac{641}{406} = 1.58$$