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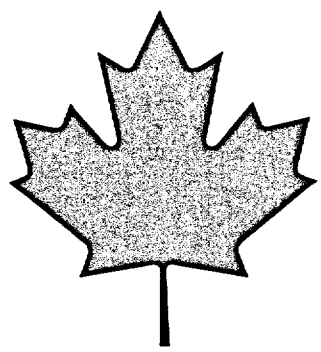
A report on a study of the market for consumable and disposable hospital products in the Mid-Atlantic States



A REPORT ON A STUDY OF THE MARKET FOR CONSUMABLE AND DISPOSABLE HOSPITAL PRODUCTS IN THE MID-ATLANTIC STATES OF THE UNITED STATES

INTRODUCTION

This report summarizes the results of a market study carried out by Wind Associates Inc. for the Department of Industry, Trade and Commerce.

The study explores the market for three categories of health care products:

(i) consumable and disposable hospital products,
(ii) clinical laboratory and diagnostic products and,
(iii) non-invasive cardiac diagnostic products.

This report covers the consumable and disposable hospital products group. The other two product groups are covered in separate reports.

The study was carried out in 1981 in conjunction with the Canadian Consulate in Philadelphia and assesses the market potential for the above product categories of the Mid-Atlantic states of the United States. This region of the U.S. has been selected for study as a potential market for Canadian exports of health care products.

A BRIEF NOTE ON REGULATORY REQUIREMENTS

The study of the Mid-Atlantic market for health care products does not include any reference to the regulatory requirements which must be met by exports to the U.S. This was done to focus the study on the commercial aspect of the market. A summary of these regulatory requirements may be found in a background paper entitled:

Summary of Regulatory Requirements for Medical Devices in Canada and the United States

Prepared by: Sector Analysis Division
Chemicals Branch
Department of Industry, Trade and Commerce
Ottawa, Canada

These papers are available from the Department of Industry, Trade and Commerce.

OBJECTIVES

The primary objective of this report is to assess the Mid-Atlantic market potential for consumable and disposable hospital products.

Two secondary objectives are to provide:

(a) initial guidelines for the long-term export development to the U.S. of the Canadian health care products industry, and

(b) initial guidelines for the design of marketing entry strategies.

APPROACH

A five-phase approach was utilized:

(a) A telephone survey to assess the needs and export experience of selected Canadian manufacturers.

(b) Analysis of available secondary data to assess the market potential for the three product categories and their current market structure.

(c) A survey among key decision makers with respect to the acquisition of new equipment and supplies. This survey was based on in-depth personal interviews with purchasing agents and physicians in hospitals and labs.

(d) A survey among distributors to assess their mode of operation and the conditions under which they will carry and promote Canadian products.

(e) Integration of the above.

GENERAL FINDINGS

1. The U.S. market for hospital and lab products and supplies is large and growing. There are 7,200 hospitals and more than 14,000 hospital and commercial clinical laboratories.

2. The U.S. market for the three product categories - disposable and consumable hospital products, cardiac equipment and clinical lab and diagnostic products -- is large and growing. Total 1978 sales of these three product categories were 19.4 billion dollars -- $16.5 billion in consumable/disposables; $2.25 billion in lab products and $650 million in cardiac equipment and supplies. All three markets have enjoyed real growth. Yet, there is a large variance across products and product categories. There is a strong movement toward the use of disposable products and increased emphasis on diagnostic and preventive medicine.

3. The Mid-Atlantic states -- Eastern Pennsylvania, Virginia, Maryland, Washington, D.C., Delaware and Southern New Jersey, are a large and attractive market for hospital and lab products and supplies. It has a large population base (29.6 million individuals) and a large hospital base (699 hospitals with 199,920 beds). (Appendix B shows a detailed breakdown of hospital statistics for this region). In addition, most of the major laboratories (SK&F, Med Path, Denam and others) are concentrated in an area within 100 miles of Philadelphia, with easy access to most of the Northeast and Southeastern U.S. This market also has a large number of distributors who would consider carrying Canadian products. Furthermore, this market can be viewed as a good test market for the entire U.S. It is large and varied enough to include all forms of medical care, and an entry strategy which is successful here can be implemented nationally. This market is also a sophisticated one and success here can be used as a strong "selling" point in other parts of the country.

4. Hospital and lab purchase decisions involve a number of participants. For medical equipment more than $100,000, HSA approval is also required (see Appendix A for a brief discussion of HSA).

5. In all three product categories, distributors play an important role and should be considered as one of the ways of entering the U.S. market.

6. Canadian manufacturers overall have a good image in this market, but they have to compete effectively against U.S. and other manufacturers; i.e., being Canadian does not offer any competitive advantage. It is also important for the Canadian manufacturers to overcome certain perceived obstacles to entry into the U.S. market (for a summary of these concerns, see Appendix C).

7. The trend among local distributors is one of constriction rather than expansion. Distributors are trying to reduce the number of brands per product category, and express reluctance to add new products. This is primarily due to the desire to simplify inventory and to focus their marketing activities on a reduced number of brands. Their reluctance to add new products does have some important exceptions. They are willing to adopt a new product if: (a) it is innovative, (b) they can get an exclusive distribution agreement, and or (c) hospitals specifically request it.

8. The distributors interviewed showed no specific resistance to adding foreign products, either Canadian (with whom they've had little experience) or Japanese (with whom they have had mostly favourable experience). Predictably, distributors specified that these foreign products must show some specific, significant advantage in profitability or quality. Although there was no specific resistance to adding Canadian or Japanese products, their adoption was conditional on the same factors that distributors said were necessary of adoption of any new product: (a) innovativeness and (b) exclusivity. Because of a highly competitive distribution environment, there is a preoccupation with exclusivity as a competitive weapon.

9. The market for all products is quite heterogeneous.

10. Major opportunities for a new manufacturer entering the market, as perceived by the key buyers are by:

    - having better products with competitive prices
    - improve delivery
    - provide new information
    - improve relationship among all participants in the system.

OVERALL STRATEGIC GUIDELINES

1. The first question facing any Canadian manufacturer is obviously "should we enter the U.S. market"? The size and growth of the U.S. market makes it a very attractive market. Yet, the market is highly competitive and the buyers sophisticated. Success would require, therefore, a unique positioning (or real cost advantages). If such a positioning can be provided by Canadian manufacturers the opportunities of operating in the U.S. are very high. The risk of failure can be reduced if the entry into the U.S. market is based on a good understanding of the market and its needs and follows an adaptive experimentation approach; i.e., design at least two major entry strategies (either for the same or different products) and experiment with them.

2. The first and most critical question facing each Canadian manufacturer is "what is the differential advantage his/her product offers the buying organization"? The two major positioning options are:

   a. unique product performance -- typically associated with an innovative product, or for established products on those cases in which the superior performance of the Canadian product can be demonstrated to the key hospital and lab decision makers.

   b. price -- offer a product similar to the one offered by competitors but at significant cost savings.

   If a given product does not have a unique positioning and does not offer a cost advantage, there is little reason to expect successful entry into the U.S. market.

   On the other hand, an ideal situation is the one in which a manufacturer can offer an improved/innovative product at a price which offers U.S. buyers significant cost savings.

3. Related to the positioning decision is the question of "what is the competitive advantage of the Canadian manufacturer"? If it is in production, quality and or cost, it would have different implications than if it were in R&D. In the first case, it might even be beneficial to consider the purchase (licence) of new innovative products in the U.S. and elsewhere and manufacturing them in Canada. If on the other hand the advantage of a Canadian firm is in the R&D area, it should specialize in this aspect and consider the production aspect as a separate one (which can either be developed or farmed outside to another firm).

4. The second critical decision, is the decision whether to sell directly to the hospitals and labs or through distributors. Both options should be considered.

Selling through distributors. There are major advantages for selling through distributors -- they have an access to the market, local presence and are typically lower cost method of distribution than employing one's own sales-force. Yet, getting a distributor to carry and promote the products of Canadian manufacturers is not an easy task. The basic task facing the Canadian manufacturer is to develop a strategy to sell the distributor and motivate him/her to promote the Canadian products. Assuring reliable supplies, offering exclusive rights for a given territory and competitive financial terms are all necessary conditions for getting acceptance by distributors. Furthermore, the more unique the product positioning the easier it is to get their acceptance. It is important to note, however, that employing a distributor still requires continuous service of his needs (after sales service, information, reliable delivery, etc.).

Selling direct. This option is viable for some of the larger customers (hospitals and labs). It is typically more expensive than operating through distributors. Yet, it offers greater opportunity to "push" the product more effectively. The cost of such an option especially when considering a single region such as the Mid-Atlantic states, can be quite reasonable since a single salesperson can cover the area quite effectively and a compensation scheme based primarily on commission can help control the cost.

Mixed pattern. Given the advantages (and disadvantages) of the two major approaches to distribution, it is strongly suggested that the Canadian manufacturer consider experimenting with both methods. Furthermore, the proposed mixed pattern can include both using the two methods of distribution as competing approaches (testing to establish which is more effective) as well as co-operative approach primarily in the form of a joint venture between Canadian manufacturers and U.S. distributors.

5. The U.S. market for hospital and lab products is highly competitive. Any new entry into this market has first of all to create awareness for its products and services. Even if one has a unique and innovative product, efforts should be directed toward creating awareness of the product and preference for it among the relevant decision makers in hospitals and labs. The need to heavily promote new products (assuming they do have a unique positioning) is especially critical given that most buyers are very satisfied with their current products and suppliers and, hence, perceive little need for change and adding a new supplier.

It is desirable, therefore, to experiment with different levels of promotional efforts. In planning the necessary promotion campaign, one should take advantage of the word of mouth communication among physicians in a given area and concentrate in one area rather than spread the efforts in a number of areas. It

is strongly suggested that unless a national distributor can be obtained to carry and promote the given products, a regional entry strategy be employed.

6. In considering the development of a promotional campaign, the Canadian manufacturers should consider all available promotional tools ranging from the conventional magazine advertising, direct mail, trade shows and sales calls to the newer telephone promotions and other innovative promotional methods.

7. If a co-operative effort among a number of Canadian manufacturers can be co-ordinated, another mode of entry into the U.S. should be considered -- establishing a marketing and trading company. Such a company would combine the Japanese trading company concept with modern marketing strategy concepts and approaches and would be designed to compete with local distributors and manufacturers.

8. Short-term export strategy should involve at the minimum a four-stage approach:

   (a) Evaluation of current products to identify those with a potential competitive advantage in the U.S. market (either in terms of cost or unique positioning).

   (b) Test the market acceptability for these products. This can be done either informally by promoting the product to a number of distributors and hospitals and lab personnel and getting their reaction to it or in a more formal way by conducting a concept/product testing approach.

   (c) Decide on a distribution option and design an associated marketing strategy for testing in the Mid-Atlantic states.

   (d) Implement the test market program, monitor results and modify the program accordingly.

9. The long-range export development strategy differs from the short-term strategy (point #8) with respect to the first phase. Instead of limiting the export activities to the firm's current products, the long-term strategy should consider as viable option the development of new products to meet the specific needs of customers (hospitals and labs) which are not met by U.S. and other competitors.

   For this strategy, more effort should be placed on R&D activities and possible extension of current supply capabilities. This would require more testing of early concepts in the U.S. market. A Canadian marketing and trading company, if established, could serve as an important vehicle to facilitate the development and subsequent marketing of the new products.

SPECIFIC FINDINGS

1. Market Composition, Size and Growth

In 1978, the total U.S. sales volume for hospital consumables and disposables was estimated at $16.5 billion and the product categories of interest were estimated at $1.95 billion. Most of the product categories in the consumables/disposables area have reached a stage of maturity and are tied to the hospital admission rate. Examples are catheters and tubes, bandages and dressings, and gloves, with projected growth rates of 5%, 7% and 5%, respectively. An important exception to this trend is the kits and trays category. Because of an increasing trend toward packaging items previously sold as single items into more convenient procedure kits/trays, and because of the growing acceptance of this trend, the projected growth rate for kits and trays is between 12 and 15%. This represents a substantial sales volume for kits and trays because their dollar sales volume in 1978 was already $175 million.

2. The Competitive Environment

The Mid-Atlantic market is very competitive. The predominant purchase pattern is one in which purchases are split between distributors and manufacturers. Those who use this pattern purchase about 67% of their disposables/consumables from distributors and 33% from manufacturers. More than 30 suppliers were mentioned by the sampled hospitals. Predominant suppliers are General Medical, J&J Surgery, N.U. Medco, and Whitaker General Supply.

A major factor in this market is the changing role of distributors. Many large hospital supply distributors, such as American Hospital Supply, are forging national distribution strategies. This is reflected in an increase in both vertical integration (buying up manufacturers) and horizontal integration (buying up regional distributors). Such huge suppliers are working closely with hospitals by taking over more responsibility for inventory management and facilitating access to inventory through the installation of computer terminals in hospitals. At present, American Hospital Supply is engaged in litigation concerning anticompetitive practices. The outcome of this case is expected to have a major impact on the future of hospital supply distribution in the U.S.

3. Market Segments

The Mid-Atlantic hospital market for disposable and consumable supplies was segmented first on the basis of the major benefits sought in disposable and consumable supplies and second, on the basis of the hospital personnel's attitudes toward Canadian manufacturers.

Three benefit segments were identified:

The General Segment (48%). This segment consists of a group who want "a little bit of everything". They are concerned with delivery and price.

The Price Segment (38%). This segment is concerned primarily with cost savings and consists of somewhat larger hospitals.

The Pro-Canadian Segment (14%). This small segment is concerned about delivery and would like a Canadian firm.

When further examined, based on their attitude toward Canadian suppliers (vs. Japan and U.S. firms), about two-thirds of the respondents (primarily larger hospitals) perceived Canadian producers as more desirable than the other two. The segment most positive toward Canadian products is price sensitive and very concerned about delivery. Without acceptable performance on these two features, there is little choice for successful acceptance of Canadian products.

4. Buying Process

The buying process involves a number of participants. The most active participants in the various stages of the buying process are:

Stage	Most Active Participants
Request Supplies	Central Supply Committee, Chief of Lab
Set Specifications	Medical Staff, Central Supply Comm.
Seek Information	Director of Materials, Cent. Supply Comm.
Set Criteria	Dir. of Materials, Purchasing Agent
Evaluate Suppliers	Purch. Agent, Central Supply Comm.
Set Budget	Budget Committee, Dir. of Materials
Negotiate w/Suppl.	Purch. Agent
Make Purchase Dec.	Purch. Agent
Postpurchase Eval.	Chief of Lab

5. Purchase Patterns

All hospitals have increased the amount spent on disposables/consumables in the past two years, with an average dollar amount of $1.6 million a year and an annual increase of 14%. Seventy-nine percent (79%) expect the amount to increase by next year, with an average expected increase of 12%.

The purchase patterns differ by type of product. Kits and trays, for example, differ from the overall disposable/consumable purchase pattern in that they are purchased primarily through distributors rather than through a combined distributor/manufacturer process.

Major suppliers of kits and trays in the Mid-Atlantic states are General Medical and Travenol. Nationally, the three major competitors are American Hospital Supply (25% specs) BARD (14% specs) and Kendell (6% specs). Overall there are more than 110 competitors in this category.

6. Criteria Used in Purchase Decision

In the aggregate, the three most important criteria used in the purchase decision of disposables/consumables are:

	Relative Importance
Price (10% lower than average)	30%
Country of Origin	28%
Delivery	24%

Quality better than standard specifications has relatively little importance as do volume -- whether any required order or a standardized size order -- and type of supplier -- a current or new distributor or supplier. There is considerable diversity in the criteria perceived as most important by the various hospitals as is clearly evident from the benefit segmentation discussed above.

7. Problems and Opportunities

When asked what factors could simplify and improve their purchase operations, respondents suggested the following: (1) delivery and price protection, (2) good inventory availability, (3) less red tape, and (4) improved relations among vendor, staff, and purchaser.

Broken down by benefit segments, the General segment showed most interest in delivery and price protection, the Price segment in good inventory availability, and the Pro-Canadian segment in delivery and price protection.

Respondents were also asked what advice they would give to new manufacturers for increasing their chances of selling. The most frequent advice was:

- Have a new and better product with competitive prices
- Improve delivery and price protection
- Provide more samples, photos, and product information

The great majority of respondents said their advice would not differ if the firm were Canadian.

8. Attitudes of Hospital Personnel

- Seventy-one percent of all respondents indicated that they were very happy with their current suppliers of disposables/ consumables. This proportion is fairly constant across segments.

- Sixty-nine percent prefer group buying.

- Only 40% of respondents show a preference for knowing distributors when purchasing disposables/consumables.

- Fifty-five percent prefer local firms. This tendency is highest among the General segment (65%) and lowest among the Pro-Canadian segment (33%).

- Canadian quality is perceived as much higher than Japanese or European, 36% vs. 17% and 26%, respectively. Similarly, only 5% perceive Canadian firms to be not reliable compared to 12% who perceive Japan firms to be unreliable.

GENERAL MARKET DATA

The objective of this section is to present information from secondary sources on the U.S. market for consumable and disposable hospital products. Specifically, information was sought and is presented on:

- market composition (in terms of product categories)
- market size
- market growth
- major competitors
- other market factors

This section of the report is based on standard industry information, recognized sources, and interviews.

Overview

The market for all hospital consumable and disposable supplies is rapidly approaching an annual dollar sales volume of $20 billion in the United States. The consumable/disposable marketplace is characterized by 20 to 30 product categories and more than 2,000 manufacturers, of which fewer than 100 have captured 80% of sales volume.

Each of the product categories in the disposable/consumable market has its own unique history, competitive structure, and projected growth rate. However, the generalization can be made that most of these product categories (e.g., catheters, gloves, bandages, and dressings) has reached a mature growth phase. Therefore, projected sales in these categories are tied to hospital admission rates, which are not expected to change significantly in the future. An important exception to this trend is the product category of kits and trays. There is a growing tendency to package items which had previously been sold as single units into a kit or tray that contains all of the necessary items for a given procedure. Therefore, the projected growth rates for kits and trays are much higher than those for many disposables and consumables that are sold singly.

A major factor in the consumables/disposables market is the changing role of distributors. Many large hospital supply distributors, such as American Hospital Supply, are forging national distribution strategies. This is reflected in an increase in both vertical integration (buying up manufacturers) and horizontal integration (buying up regional distributors). Such huge suppliers are working closely with hospitals by taking over more responsibility for inventory management and facilitating access to inventory through the installation of computer terminals in hospitals.

Market Composition

In 1978, the total U.S. sales volume for hospital disposables and consumable supplies was estimated at $16.5 billion.

The disposables and consumables area consists of a large number of product categories, each with its own market characteristics and growth rate. Figure 1 shows a detailed listing of some of the major product categories together with the amount of the total 1978 sales volume accounted for by each.

The focus of the remainder of this report will be on the circled product categories in Figure 1 (disposable trays and kits, bandages and dressings, catheters and tubes, and gloves). Figure 1 shows that these four categories account for a significant amount of the total market for consumables and disposables.

Figure 1

Composition of the Disposables and Consumable Supplies Market in Terms of Product Categories

(based on 1978 sales volume in millions of dollars)

Product Category	1978 Sales (in million $)
X-ray film	300
Sutures	200
Disposable kits and trays	175
Bandages and dressings	175
Disposable apparel	105
Catheters and tubes	100
Cotton products	100
Disposable instruments	100
Drapes and packs	100
Parenterals	100
Surgical instruments	90
Environmental cleaning aids	90
Gloves	90
X-ray solutions	50
Reusable garments	40
Electrodes - chart paper	35
Casts and plasters	25
Syringes	25
Diapers	20
Disposable surgical solutions	17
Hand scrubs	10
Hot and cold pads	2
	1,949

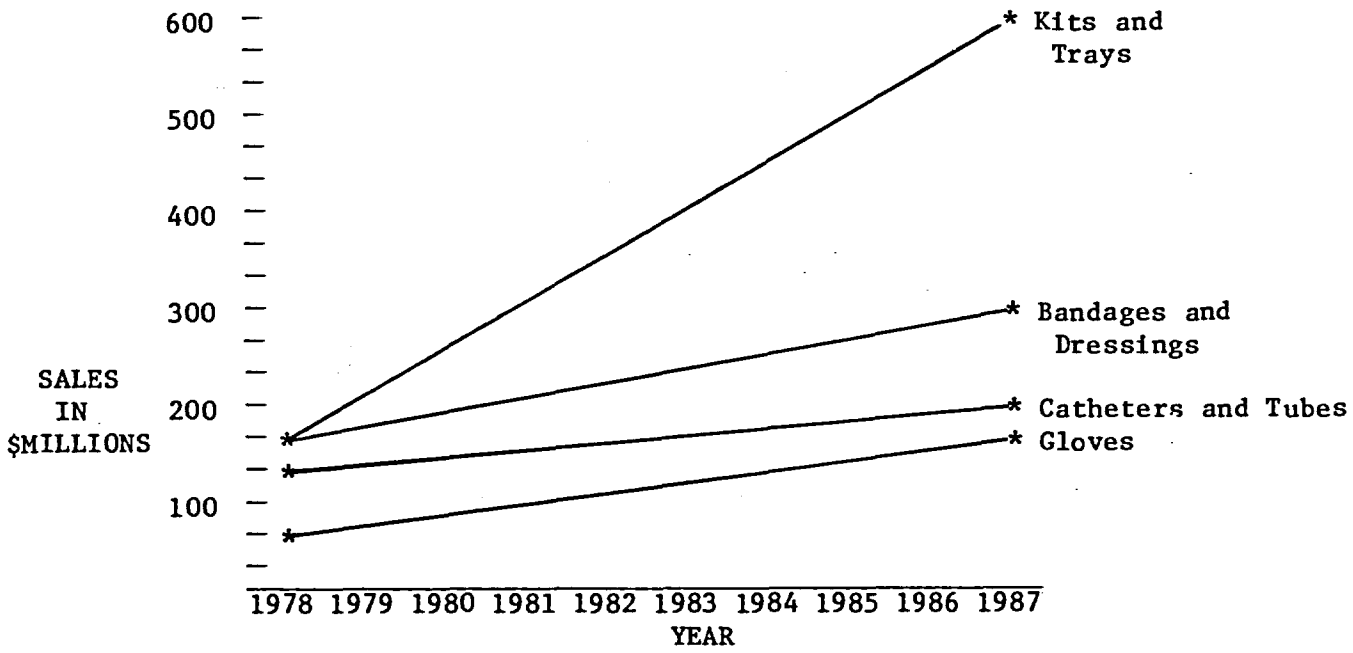
Comparative Size and Growth of Selected Categories

Sales data for the selected product categories of kits and trays, bandages and dressings, catheters and tubes, and gloves and presented in Figure 2. The two largest categories are kits and trays and bandages and dressings, each showing a 1978 U.S. sales volume of $175 million. Sales volume for the other two categories in 1978 was in the $90-100 million range.

The projected sales growth of the kits and trays category is dramatically high, with a 1984 projected sales volume of $410 million. The relatively slow growth in the other three product categories is directly related to the fast growth in kits and trays. Products sold as single items are rapidly being packed with an assortment of other single items and marketed as a kit or tray. Therefore, the growth of kits and trays is high, causing the growth rate of the individually packaged catheters or the individually packaged pair of gloves to be relatively low.

Figure 2

Projected Size of Selected Product Categories



DATA POINTS:

Gloves		Bandages and Dressings		Catheters and Tubes		Kits and Trays	
Year	$ Million	Year	$ Million	Year	$ Million	Year	$ Million
1978	90	1978	175	1978	100	1978	175
79	96	79	187	79	108	79	200
80	103	80	200	80	118	80	230
81	110	81	215	81	125	81	270
82	116	82	228	82	130	82	310
83	122	83	240	83	135	83	350
84	128	84	253	84	140	84	410
85	135	85	267	85	147	85	480
86	140	86	282	86	154	86	550
87	146	87	300	87	160	87	600

Kits and Trays

The total U.S. sales volume for kits and trays was $175 million in 1978, and the projected growth rate is 12% in constant sales dollars. This rapidly growth market is expected to generate $410 million in sales by 1984.

A kit or tray is a package containing all of the products necessary for a single function or procedure. Some existing product subcategories are catheterization kits, surgical prep trays, enema administration kits, and urine collection kits. A more detailed analysis of the major product subcategories follows.

Patient Admission Kit

The patient admission kit usually contains a wash basin, emesis basin, a tumbler, and a soap dish. Patient admission kits are the largest subcategory of kits and trays, accounting for $40 million in sales in 1978.

In 1978, the major competitors in the patient admission kit market were:

	% of Market
American Hospital Supply	30
Will Ross	15
Sherwood	15

Foley Catheterization Trays

In 1978, U.S. sales volume for Foley catheterization trays was $30 million. The major competitors in this market were:

	% of Market
Bard	35
Kendall	22
Pharmaseal (AHS)	18
Will Ross	9
Travenol	9

Urinary Drainage Kits

This kit contains a unit for collecting urine by means of a tube connected to a catheter. 1978 sales for these kits were $12 million. Major competitors were:

	% of Market
Bard	30
Pharmaseal (AHS)	20
Kendall	20
Travenol	10

Urethral Catheterization Trays

The 1978 U.S. sales volume for urethral catheterization trays was $9 million. Major competitors were:

	% of Market
Bard	25
Pharmaseal (AHS)	25
Kendall	25

Nonmedical Enema Administration Kits

Sales volume in 1978 for nonmedical enema administration kits was $6.5 million. Major competitors were:

	% of Market
Bard	15
Travenol	10
Will Ross	10

Bandages and Dressings

The category of bandages and dressings includes the product subcategories of surgical dressings, bandages, tapes, plasters, disposable underpads, and cotton swabs. In 1978, U.S. sales volume for the bandages and dressings category was $175 million with a projected growth rate of 7%. Projected sales in 1984 are $235 million.

The competitive structure of the market for bandages and dressings, based on 1978 market share data, is as follows:

	Market Share
Johnson and Johnson	39%
Kendall (Colgate Palmolive)	29
Parke, Davis	11
Minnesota Mining	7
Others	14

Catheters and Tubes

Total U.S. sales volume for catheters and tubes was $100 million. This figure is expected to reach $140 million by 1984.

The catheters and tubes market consists of the following product categories:

	1978 Sales
Urinary catheters	
Single Foley catheters	$25 million
Foley catheters packaged in kits	18 million
Urethral catheters	5 million
Suction catheters	25 million
Disposable connecting tubes	14 million
Disposable suction containers	12 million

Urinary Catheters

Urinary catheters are divided into Foley catheters and urethral catheters.

Foley Catheters

Foley catheters are packaged either singly or as Foley trays, including some combination of disinfectant, tubing, gloves, syringe, and urine collection bag. Major competitors in both the single Foley and Foley tray markets in 1978 were:

	Single Foleys	Foley Trays
Bard	67%	35%
Kendall	9	22
ACMI	7	-
Pharmaseal	5	18
Will Ross	4	9
Travenol	-	9
Others	8	7

As stated previously, the projected growth rate for single Foleys is relatively low (about 4%), while the rate for Foley trays is significantly higher (about 8%).

Urethral Catheters

The 1978 sales volume for urethral catheters was $5 million, with a projected growth rate of 5% in current sales dollars. Major competitors in this market were, according to 1978 data:

	% of Market
Bard	33
Davol	25

Suction Catheters

1978 U.S. sales for suction catheters were $25 million. The projected growth for this product is 12%, mostly due to an increase in the number of suction catheters being packaged as kits. Major competitors in the suction catheter market were:

	% of Market in 1978
Bard	20
American Hospital Supply	20
Sherwood	10
Davol	10

Disposable Connecting Tubes

1978 sales volume for disposable connecting tubes was $14 million. Projected growth for this product is at the rate of 15% in constant dollars. Major competitors in this market in 1978 were:

	% of Market
Davol	35
American Hospital Supply) Sherwood)	45

Disposable Suction Containers

This product is used with a suction installation to collect secretions during surgery. 1978 U.S. sales volume was $12 million. A substantial growth rate of 25% is predicted for this product, due to its potential to replace glass products. Major competitors in 1978 were:

	% of Market
American Hospital Supply	33
Sorenson	25
Respiratory Care	10

Gloves

The total U.S. sales volume in 1978 for gloves was $80 million (excluding gloves packaged in kits and trays). The two product categories in the market for gloves were surgeons' gloves ($48 million) and examination gloves ($32 million).

Surgeons' Gloves

Total 1978 sales volume for surgeons' gloves was $48 million. The projected growth rate is tied to the rate for surgical procedures and is around 3%. The major competitors in this market are:

	Market Share
Affiliated Hospital Products	20%
Parke-Davis	18
Pharmaseal	15
Dart	11

Examination Gloves

Total 1978 sales volume for examination gloves was $32 million. Due to the increased usage of these gloves in clinics and outpatient departments, the projected growth rate for this product is 7%, somewhat higher than that for surgeons' gloves. The major competitors in the market for examination gloves are:

	Market Share
Will Ross	20%
Pharmaseal	20
Bard Parket	12

As with other hospital consumables and disposables, there is a trend toward inclusion of gloves in trays and kits.

SPECIFIC MARKET DATA

This section summarizes the results of a survey of 42 hospitals selected in eastern Pennsylvania, Virginia, Maryland, Washington, D.C., Delaware, and South Jersey. These hospitals included about an equal number of small (less than 400 beds) and large hospitals.

The contact person in each hospital was the Director of purchasing materials management who was selected as a respondent only if he/she indicated involvement in the purchase of consumable and disposable hospital products.

Current Product Purchase Pattern

The most dominant purchase pattern of disposables/consumables is one in which purchases are split between distributors and manufacturers. Those who use this pattern purchase about two-thirds of their supplies from distributors and one-third from manufacturers. Respondents named an extremely wide variety of suppliers when asked to indicate their major suppliers. The most frequently mentioned were General Medical and J & J Surgery.

It is significant that 19% of the respondents buy primarily through a hospital purchasing group.

One hundred percent (100%) of the respondents indicated that their hospitals had increased the amount spent on disposables/consumables in the past two years, with an average dollar increase of 14%. Seventy-nine percent (79%) expect the amount to increase by next year, with an average expected increase of 12%.

Purchase Pattern: Total Sample

Primary Method of Buying Disposable and Consumable Hospital Supplies

Direct from manufacturer	4.8%
From single distributor	2.4%
From a number of distributors	16.7%
Direct from mfr. and from dist.	76.2%
A hospital purchasing group	19.0%

Of those who buy from both manufacturers and distributors:

Avg. % purchased from manufacturers:	32.7%
Avg. % purchased from distributors:	67.3%

Major Suppliers of Disposable and Consumable Hospital Supplies

General Medical	47.4%
J&J Surgery	21.1%
NU Medico	13.2%
Whitaker General Supply	13.2%
Sci. Prod.	5.3%
Curity Kendal	5.3%
Powers & Anderson	5.3%
Abbott Lab	2.6%
Serano	2.6%
Med. Surgical	2.6%
American Hospital	2.6%
Keystone	2.6%
Will Ross	2.6%
Travenol	2.6%
Kloman Ind.	2.6%
Marston Dietary	2.6%
Capehart	2.6%
Other	65.8%

Amount Spent Per Year:*

Average	$ 1,600,000
Range	($50,000 to $7,000,000)

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*In considering the expenditure figures, two factors should be considered: (a) Most of the respondents did not answer these questions. Only 21 answers were provided and (b) among the respondents, the range of expenditures is very large, from a low of $50,000 to a high of $7,000,000. The standard deviation for the total sample is $1.9 million.

Purchase Pattern by Type of Product

Purchase patterns for disposables/consumables differ by type of product. The following tables show unique purchase patterns for kits and trays. The pattern for kits and trays differs from the overall disposable/consumable pattern in that kits and trays are purchased primarily through distributors rather than through a combined distributor/manufacturer process. Also, kits and trays are less frequently purchased through hospital purchasing groups than are other disposables/consumables.

Major suppliers of kits and trays are General Medical and Travenol, as indicated by respondents.

Purchase Pattern: Total Sample (cont'd)

Primary Method of Buying Kits and Trays

Direct from manufacturer	2.4%
From single distributor	11.9%
From a number of distributors	47.6%
Direct from manufacturer and distr.	35.7%
A hospital purchasing group	7.1%

Of those who buy from both manufacturers and distributors:

Avg. % purchased from manufacturers:	44.7%
Avg. % purchased from distributors:	55.3%

Major Suppliers of Kits and Trays

General Medical	34.4%
Travenal	12.5%
Abbott	9.4%
NU Medico	6.3%
Custom Kit Pak	6.3%
J&J Surgery	6.3%
Curity Kendal	3.1%
Keystone	3.1%
Whitaker General Supply	3.1%
Proctor and Gamble	3.1%
Other	71.9%

Amount Spent Per Year on Kits and Trays:*

Average	$435,000
Range	($15,000 to $2,000,000)

*As with the overall purchases of hospital supplies, the average expenditure on kits and trays hides the wide variability in expenditure -- from a low of $15,000 to a high of $2,000,000. The standard deviation is, therefore, not surprisingly more than $530,000.

CRITERIA USED IN PURCHASE DECISIONS

In the aggregate, the three most important criteria used in the purchase decision of disposables/consumables are:

	Relative Importance
Price	30%
Country of Origin	28%
Delivery	24%

Criteria by Benefit Segments

The most important purchase decision criteria used by each of the benefit segments are as follows:

Segment 1 - General	Relative Importance
Country of Origin	30%
Delivery	26%
Price	21%

Segment 2 - Price	
Price	49%
Country of Origin	18%
Delivery	13%

Segment 3 - Delivery/Pro-Canadian	
Delivery	45%
Country of Origin	44%

Things which would simplify and improve purchasing operations	Percent of Total Surveyed
Improve inventory/accounting	5.0
Good inventory availability/ standard	17.5
Specialized items/one distributor instead of shopping around	2.5
Have several distributors local	7.5
Next day delivery/faster delivery	5.0
Back orders by mfr/supply and demand can't be met/shortage of material	5.0
Delivery and price protection/ consistency	27.5
Auto order entry/auto shipments/ teletype/computerized	7.5
Red tape/paperwork/too many people/lack of communication	12.5
Not at this time/have enough/ ours ok/meets our needs	2.5
More samples/info/photos left for evaluation/replace or rent if equip. down	2.5
Personnel training/understand and do better	2.5
Educated sales approach/expertise/explain product/don't be pushy	5.0
If product is equal, then price, delivery, stock, service, reputation	5.0
If product new or improved tested better, deal, prices, is competitive	10.0
Good service/supply of parts local	7.5
Improved relations among sales vendors/staff/credit purchaser	12.5
Prefer reusables	5.0
Other	12.5
None/no/don't know	2.5

	Percent of Total Surveyed
Percent who have other problems that, if solved, would help improve their purchasing operations:	26.8
Things which would simplify and improve purchasing operations	
Good inventory availability/ standard	17.5
Delivery and price protection/ consistency	27.5
Red tape/paperwork/too many people/lack of communication	12.5
Improved relations between sales vendors/staff/credit purchaser	12.5
Advice to new manufacturers to increase their chance of selling disposable and consumable supplies	
Delivery and price protection	26.2
More samples/info/photos left for evaluation/replace or rent if equipment down	21.4
If product new, improved, tested better, deal/prices/is competitive	33.3
Percent whose advice would be different if not a U.S. firm:	7.1
Ways it would be different:	
Delivery time from vendor delays, takes too long/ delivery charges	66.7
Other	33.3

	Percent of Total Surveyed
Advice to new manufacturers to increase their chance of selling disposable and consumable supplies	
Good return policy	2.4
Keep back-up supply/have good followup	2.4
Good inventory availability	11.9
Specialized items/one distributor	2.4
Several local distributors	7.1
Back orders by mfr/supply and demand can't be met/shortage of material	2.4
Delivery and price protection/ consistency	26.2
Auto order entry/auto shipments/ teletype/computerized	2.4
Request for product/need for budget/council decides	2.4
Buy only what is required/ waste/expensive to buy what don't need	2.4
Back door sales waste time/go directly to person involved	2.4
More samples/info/photos left for evaluation/replace or rent if equipment down	21.4
Educated sales approach/expertise/explain product/don't be pushy	11.9
If product is equal, then price, delivery, stock, service, reputation	19.0
If product new or improved tested better, deal, prices, is competitive	33.3
Good service/supply of parts local	7.1
Improved relations among sales vendors/staff/credit purchaser	9.5
Prefer reusables	2.4
Other	2.4
None/no/don't know	4.8
Percent whose advice would be different if not a U.S. firm:	7.1
Ways it would be different:	
Delivery time from vendor delays, takes too long/delivery charges	66.7
Other	33.3

Attitudinal Statements	Percent of Total Surveyed
Hospital is most innovative	64.3
Decision making highly centralized	57.1
Canadian quality as good as U.S.	35.7
Prefer known distributors	40.5
Prefer local firms	54.8
Prefer U.S. firms	40.5
Japanese quality as good as U.S.	16.7
European quality as good as U.S.	26.2
Prefer group buying	69.0
Canadian firms not reliable as U.S.	4.8
Japanese firms not reliable as U.S.	11.9
Satisfied with current suppliers	71.4

ATTITUDES TOWARD CANADIAN MANUFACTURERS

Attitudinal Statements - Top Two Selections	Percent of Total Surveyed
Hospital is most innovative	64.3
Decision making highly centralized	57.1
Among last to buy new products	7.1
Among first to buy new products	7.1
Administration and physicians at odds	14.3
Canadian quality as good as U.S.	35.7
Experimenting with new suppliers too risky	11.9
Prefer known distributors	40.5
Lowest priced supplier is choice	21.4
Prefer local firms	54.8
Prefer U.S. firms	40.5
Getting funds is difficult	38.1
Hospital in terrible financial shape	4.8
Politics more important	4.8
Japanese quality as good as U.S.	16.7
European quality as good as U.S.	26.2
Prefer group buying	69.0
Most cost conscious in near future	76.2
Priorities not well defined	2.4
Status quo hospital	7.1
Disagreement on future directions	7.1
Close relationships among physicians	45.2
Change and innovation stifled	4.8
Certification of needs a major obstacle	26.2
Canadian firms not reliable as U.S.	4.8
Japanese firms not reliable as U.S.	11.9
Satisfied with current suppliers	71.4

DISTRIBUTORS

Purpose

The major purpose of this section is to provide information that will assist Canadian manufacturers of hospital and medical supplies in marketing their products through existing U.S. distributors. Three specific types of information are presented:

1. the structure of the distribution market, including purchase issues, selling issues, and distributors' attitudes;

2. the decision-making process that distributors use when considering whether or not to accept new products; and

3. a description of distributors' attitudes toward and experience with foreign products.

Approach

In order to gather information about the distributors' activities in the hospital/medical supply field, in-depth personal interviews were conducted with eight distributors. Because of the lack of existing systematic knowledge about distributor activities in this field, each interview was structured to cover a very broad range of topic areas. As a result, the average length of each interview was one and a half hours.

The distributors showed a strong reluctance to be interviewed. The eight completed interviews were the result of an initial screening process in which 140 distributors were screened. One hundred didn't fit the requirements of the study because they were totally retail. Of the 40 who met the requirements, eight agreed to be interviewed. This reluctance may be attributable to an existing crisis in the field of hospital/medical supplies. Distributors are currently awaiting the outcome of a law suit against American Hospital Supply, a major national distributor. The litigation was brought against American Hospital Supply by a group of independent distributors, charging AHS with monopolistic policies. Distributors feel that the outcome of this litigation will have a far-reaching impact on the future distribution of medical supplies, and many are reluctant to discuss their business practices until the suit is settled. Only one national distributor consented to participate in this study.

This section provides some initial background information about the U.S. distribution of hospital/medical products. Due to the limited number of respondents, results cannot be generalized too widely.

Results

A. Structure of the Distributors' Market

Major Product Lines

- All of the respondents indicated that two or three leading products accounted for half or more of their total sales volume. Typical groupings of leading products were: sutures/syringes/gloves, and IV catheters/sutures. The national distributor, American Hospital Supply (AHS), indicated that trays (25%) and gowns (25%) together accounted for half of their sales volume.

1980 Sales Volume and Accounts

- 1980 sales volume ranged from $800,000 for the smallest distributor to $33 million for the largest.

- Account structures for the distributors fell into three patterns. The national supplies (AHS) sells only to hospitals. The local distributors specializing in catheters, sutures, and syringes sell about 75% to hospitals, 15% to nursing homes, and 10% to doctors.

- Significantly, only two respondents reported any business with buying groups, and this business accounted for less than 5% of sales volume in both cases.

- The distributors reported that they employ differing numbers of salespeople, ranging from one for the smallest distributor to 22 for the largest.

Self-manufacturing and Self-branding

- Only the national distributor (AHS) reported that they engaged in manufacture of the products that they distribute. They estimated that fully 80% of their product distribution was manufactured by themselves.

- On the other hand, almost all distributors are now involved in putting their own brand names on products from outside manufacturers. The local distributors engage in a small degree of self-branding (from 5-20% of sales), but the practice is growing.

Competitive Structure of Distribution Market

- Almost all of the respondents, including the national distributor, perceived their major competitors to be other local distributors. This suggests the hypothesis that the nationals

may not be competing head to head in all product/geographic areas. The only respondent who believed his major competitor to be a national distributor was a local distributor of disposable diapers and oxygen who believed that the AHS was his major competition.

- Most respondents perceived their second major source of competition to be national distributors. Interestingly, AHS, the only national, ranked manufacturers' reps as their second major source of competition (after locals) and other nationals as their third.

- All of the distributors believe that they are operating within very competitive markets. When they were asked what competitive edge they would like to develop if they had more resources, almost all who answered gave responses related to the manufacturing end. The most frequently mentioned were: (1) more control of the manufacturing process, (2) product exclusivity with a manufacturer, and (3) more technical knowledge from the manufacturer.

National vs. Local Distributors

- As indicated in the introduction, there is currently a legal conflict between national distributors and the locals who perceive them as engaging in monopolistic practices. Manifestations of the conflict appeared in differing responses to attitude questions. The respondent from the national distributors (AHS) strongly agreed that by 1990 almost all distribution will be through nationals; the locals strongly disagreed with this scenario. AHS also agreed that the most important function that a distributor provides for a manufacturer is collection. Again, most of the locals strongly disagreed.

Distributors' Perceptions of Major Problems

- In the opinion of the respondents, the major problems facing distributors today revolve around financing and delivery. Financial problems are expressed in terms of difficulty in borrowing money to buy inventory. One distributor stated that the industry range for accounts receivable was 60-90 days, with an industry wide average of 48 days. On the other hand, respondents reported that the majority of payments to manufacturers were made on a 10 day, 2% discount basis. (The financially strongest distributor, AHS, reported paying manufactures on an immediate payment, 5% discount basis for 60% of its business.)

- In addition to financial issues, distributors named delivery issues as a major source of problems. Distributors complained that they frequently had to wait an excessive amount of time for shipments from manufacturers, and that the manufacturers have a "bad attitude" about this problem. One distributor complained that sometimes deliveries were so delayed that the expiration date on the merchandise had passed. Most distributors said that the manufacturer pays freight charges on minimum dollar volume shipments. Three distributors expressed the belief that manufacturers should pay freight charges under all circumstances.

B. Process and Criteria for Adopting New Products

Current Brand Practices

- The majority of distributors reported that they typically carry about three brands within each of the major product lines. Most (5 of the 8) said that they would prefer to reduce the number of brands, two preferred maintaining the same level, and only one preferred to add brands. Those who preferred to reduce the number of brands reasoned that they would like to be able to reduce the complexity of their inventories and that they would like to be able to focus and intensify their marketing efforts by limiting the number of brands. The national distributor (AHS) preferred to maintain its current number of brands.

Practices and Attitudes About Adding/Deleting Manufacturers

- Most distributors reported that they had added from 10 to 20 manufacturers within the last two years and that they had dropped from 0 to 20. AHS reported adding five manufacturers within the past six months and only dropping one manufacturer within the past two years.

- Most distributors said that they were eager to add new manufacturers, but specified restrictions. Specifically, they indicated an interest in adding a new manufacturer if an innovative product was involved, or if the buyer (hospital) requested the manufacturer. AHS said they were willing to add new manufacturers in order to provide more variety for customers.

Process for Adding New Products

- Among the local distributors, decisions about adding new products are made at a high level, usually involving the owner or president, in conjunction perhaps with a salesperson.

- The criteria for adoption of new products vary among distributors. One distributor indicated that he subjects the proposed new product to a pragmatic test. He distributes product literature among his accounts, and if interest is shown, he stocks the product.

- In general, the most frequently mentioned criteria for product adoption are anticipated demand, profit margin, and availability.

- The national distributor (AHS) makes new product adoption decisions at Chicago headquarters with a team composed of a product manager and a marketing manager. The AHS respondent didn't specify their decision criteria.

C. Foreign Manufacturers

Current Relationships

- All local distributors indicated that some percentage of their products was made by foreign manufacturers, with the percentage ranging from 5-30%. Countries most frequently mentioned were Japan, Germany, and Pakistan. Products most frequently mentioned were stethoscopes and blood pressure kits (Japan) and scissors (Pakistan). Overall, distributors reported that their experiences with foreign manufacturers had been favourable.

- None of the local distributors were dealing with Canadian products and indicated that they had not been approached by any Canadian firms. On the other hand, five of the seven local distributors are currently selling Japanese products, mostly stethoscopes and blood pressure kits. In most of these firms, Japanese products account for only 2-5% of total sales, but one distributor reports 30-40% of sales are Japanese products.

Experience with and Interest in Foreign Products

- Although all of the local distributors reported favourable experiences with their foreign products, two said they were not interested in distributing more foreign products. Obstacles mentioned were long delivery times and "U.S. economy." Respondents indicating interest in more foreign products stated that their interest was conditional on a variety of factors:

  1. if exclusivity could be obtained;
  2. if the product was not available in the U.S.; and
  3. if foreign prices were cheaper than U.S. prices.

- Local distributors reported having little or no experience with Canadian products, but all but one indicated an interest in distributing Canadian products if price, quality, and profitability criteria were met.

- All but one distributor reported having favourable experience with distribution of Japanese products. Most saw as an advantage the fact that Japanese products could be ordered from the firm's U.S. distributor, instead of having to deal directly with Japanese manufacturers. As with Canadian products, all but one of the local distributors indicated an interest in distributing more Japanese products if price, quality, and profitability criteria were met.

Images of Foreign Products

- Most distributors felt there was no difference between the image of U.S. products and foreign products. One felt that U.S. products had a better image for quality while another felt that U.S. products were getting a bad image for quality.

- Respondents did not perceive any differences between images of Canadian and U.S. products. In terms of the image of Japanese products, three respondents felt that Japan had developed a strong image for high quality, two felt the Japanese image connoted low quality, and two saw no difference from the U.S. image.

Responses from the National Distributor (AHS)

- The AHS respondent indicated some confusion about AHS's relations with foreign manufacturers. He reported that AHS distributes OB pads manufactured by a firm located in Canada, but owned by AHS. He indicated that AHS is not interested in adding foreign manufacturers (excluding Canadian ones) because they "support the American economy" and "own their own distributorships in England, France, Japan, and Canada." It is likely that this respondent is not well-informed as to AHS's relationships with foreign manufacturers, since he does not work at corporate headquarters in Chicago, where such information is more likely to be discussed.

Degree of Interest in Adding Canadian Manufacturers

- When asked how interested they would be in adding Canadian manufacturers "if their products were competitive with those of U.S. firms," six of the eight respondents said they probably would, and two said they probably would not. Of these two, one was the AHS respondent (see above) and the other had a generalized resistance to product duplication (e.g. he indicated he would handle a Canadian product if it were very innovative).

Conclusions

1. The U.S. distributor environment for medical products is currently one of conservatism. Due to the U.S. economy and to the unresolved legal conflict between national distributors and local distributors, the distributors are showing a very low level of risk-taking behaviour.

2. The trend among local distributors is one of constriction rather than expansion. These distributors are trying to reduce the number of brands per product category, and express reluctance to add new products.

3. The locals say they are reducing the number of brands per product because they are trying to simplify inventory and to focus their marketing activities on a reduced number of brands. Their reluctance to add new products does have some important exceptions. They are willing to adopt a new product if: (1) it is innovative, (2) they can get an exclusive distribution agreement, and/or (3) hospitals specifically request it.

4. The distributors interviewed showed no specific resistance to adding foreign products, either Canadian (with whom they've had little experience) or Japanese (with whom they have had mostly favourable experience). Predictably, distributors specified that these foreign products must show some specific, significant advantage in profitability or quality. Although there was no specific resistance to adding Canadian or Japanese products, their adoption was conditional on the same factors that distributors said were necessary for adoption of any new product: (1) innovativeness and (2) exclusivity. Because of a highly competitive distribution environment, there is a preoccupation with exclusivity as a competitive weapon.

5. The missing piece of information concerns the future of the national distributors. Only one national distributor, American Hospital Supply, was willing to participate. The outcome of the unresolved legal dispute between local distributors and American Hospital Supply will have a profound influence on the future of the distribution market. While the case is awaiting resolution, most planning and risk-taking by distributors is at a very low level.

APPENDIX A

Health Systems Agency

A Health Systems Agency (HSA) is a private, nonprofit corporation designated under Federal and State law for health planning and resources development. There are more than 200 HSAs in the United States, each serving several countries within a state. For example, the HSA of Southeastern Pennysylvania serves five countries consisting of 3.8 million people.

HSAs are funded by federal, state and local government monies. Under provisions of the National Health Planning and Resources Development Act of 1974 (Public Law 93-641), each HSA's responsibilities include:

1. Evaluation of proposals for new services for expanded health facilities, equipment, and services requiring a capital expenditure of $100,000 or more.

2. Review of the appropriateness of all institutional health services in the area.

3. Annual recommendations to the state of projects and priorities for the modernization, construction and conversion of medical facilities.

The HSAs have been a source of controversy because they have opposed hospital development and acquisition projects which the hospitals have strongly desired (e.g., CAT scanners). The Reagan Administration is expected to eliminate Federal funding for all HSAs, and many are expected to close by the end of 1981.

APPENDIX B

Utilization, Personnel and Finances in States

Source: Hospital Statistics, American Hospital Association, 1980.

	# of hospitals	# of beds	Occupancy(%)	Surgical Operations	Full-Time Equivalent Physicians & Dentists
Delaware	15	4,220	83.9	55,597	204
Washington, D.C.	17	8,563	85.1	104,303	894
Maryland	84	25,174	81.8	366,493	1,556
New Jersey	135	43,743	82.3	561,317	1,970
Pennsylvania	314	86,360	79.3	1,155,280	3,368
Virginia	134	31,859	77.5	439,259	962
	699	199,920		2,682,249	8,954

Data is from 1979 questionnaire. Physicians and Dentists are those employed by hospitals.

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Comparable Figures from 5 Years Before (1974 Questionnaire)

	# of hospitals	# of beds	Occupancy(%)	Surgical Operations	Full-Time Equivalent Physicians & Dentists
Delaware	14	4,710	87.0	53,478	138
Washington, D.C.	20	11,512	82.1	136,184	1,373
Maryland	81	29,666	82.0	298,982	1,695
New Jersey	145	49,908	80.3	518,238	1,726
Pennsylvania	321	101,614	80.0	1,055,867	3,636
Virginia	128	35,724	84.3	383,985	1,068
	709	233,134		2,446,734	9,636

APPENDIX C

Canadian Manufacturers' Perceptions of Obstacles to Exporting to the United States

Canadian manufacturers perceived the following as obstacles to entry in to the U.S.: lack of financial resources, too much red tape in U.S. and Canada, lack of management capabilities, lack of capability to offer after-sales service, U.S. tariffs and duties, distribution problems, and lack of unique products.

Manufacturers' perceptions differed as a function of their experience with exporting to the U.S. Experienced exporters (those whose exports to the U.S. account for more than 30% of total sales) perceive the major obstacles to be mostly external (red tape, tariffs, duties). Less experienced exporters (exports to U.S. accounting for less than 30% of sales) perceived obstacles to be mostly internal (lack of financial resources, lack of after-sales service capability, high manufacturing costs, lack of management capability. Nonexporters to the U.S. perceive the major obstacles as being too much red tape in the U.S., lack of contacts with U.S. distributors, higher manufacturing costs in Canada, and lack of contacts with U.S. clients.

Canada

(aussi édité en français)