Exhibit 1

Curriculum Vitae
Stephen W. Schondelmeyer, Pharm.D., Ph.D.
Exhibit 2

Documents Considered, Received, Relied Upon, or Created in Connection with Expert Report
Exhibit 3

Channels of Distribution,
Sources of Payment, and
Entities Included in AMP Calculation
Exhibit 3A.
Channels of Distribution for Prescription Drugs: 2002

Drug Manufacturers & Marketers
100.0% ($215.7 bil.)

- Chain Warehouse: 27.4% ($59.0 bil.)
- Mass Merchant Pharmacy: 4.3% ($9.2 bil.)
- Food & Drug Pharmacy: 7.2% ($15.5 bil.)
- Independent Pharmacy: 13.7% ($29.5 bil.)
- Mail Order Pharmacy: 13.3% ($28.7 bil.)
- Health Plan Pharmacy: 1.0% ($2.3 bil.)
- Clinic & Drs’ Office: 8.4% ($18.1 bil.)
- Long Term Care Pharmacy: 4.4% ($9.5 bil.)
- Hospital: 15.9% ($34.3 bil.)
- Government Facilities & Other: 4.4% ($9.6 bil.)

Regional Wholesalers
- 9.3% ($20.2 bil.)

National Wholesalers
- 45.7% ($98.5 bil.)
- 4.3% ($9.2 bil.)

Group Purchasing Organizations

Source: Compiled by PRIME Institute, University of Minnesota from data found in DDD Annual Class of Trade Analysis (Plymouth Meeting, PA: IMS, 2002).
Exhibit 3B.
Sources of Payment for Prescription Drugs: 2002

Private Insurance
(Indemnity, BCBS, Managed Care, HMOs, other)

Public Insurance
(Medicare & Medicaid)

Self-Pay
(Uninsured, non-covered Rxs)

Government
Delivered

Pharmacy Benefit Manager

Chain Pharmacy
27.4%
59.0 bil.

Chain Pharmacy
27.4%
59.0 bil.

Mass Merchant Pharmacy
4.3%
9.2 bil.

Independent Pharmacy
13.7%
29.5 bil.

Food & Drug Pharmacy
7.2%
15.5 bil.

Mail Order Pharmacy
13.3%
28.7 bil.

Medicare & Medicaid
29.7%
64.2 bil.

Indemnity
30.7%
60.6 bil.

Private Insurance
13.3%
28.7 bil.

Government
Facilities & Other
4.4%
9.6 bil.

Government
Delivered

Community Pharmacy
52.5%
113.3 bil.

Institutional Pharmacy
29.7%
64.2 bil.

Mail Order Pharmacy
13.3%
28.7 bil.

Clinic & Drs’ Office
8.4%
18.1 bil.

Mail Order Pharmacy
13.3%
28.7 bil.

Clinic & Drs’ Office
8.4%
18.1 bil.

Hospital
15.9%
34.3 bil.

Government
Facilities & Other
4.4%
9.6 bil.

Health Plan Pharmacy
1.0%
2.3 bil.

Long Term Care Pharmacy
4.4%
9.5 bil.

Pharmacy

Self-Pay
(Uninsured, non-covered Rxs)

Self-Pay
(Uninsured, non-covered Rxs)

Government
Facilities & Other
4.4%
9.6 bil.

Government
Facilities & Other
4.4%
9.6 bil.

Public Insurance
(Medicare & Medicaid)

Private Insurance
(Indemnity, BCBS, Managed Care, HMOs, other)

Source: Compiled by PRIME Institute, University of Minnesota from data found in DDD Annual Class of Trade Analysis (Plymouth Meeting, PA: IMS, 2002) and in The Chain Pharmacy Industry Profile, 2002 (Alexandria, VA: National Association of Chain Drug Stores, 2002). Amounts and percent are for drug expenditures at the manufacturer sales level and do not include pharmacy fees or payments.
Exhibit 3C. Pharmaceutical Market Structure: Distinct Market Segments & Classes of Trade
Exhibit 3E. CMS Final Rule: Wholesalers

Drug Manufacturers & Marketers

Chain Warehouse
Regional Wholesalers

National Wholesalers

Chain Pharmacy
Mass Merchant Pharmacy
Food & Drug Pharmacy
Independent Pharmacy
Mail Order Pharmacy
Health Plan Pharmacy
Clinic & Drs’ Office

Long Term Care Pharmacy
Hospital
Government Facilities & Other

Hospital Outpatient
Non-Profit Entities

Manufacturer Direct Sales, Pt. Assistance, Coupons, & Vouchers
Exhibit 3F. Pharmaceutical Market Structure: Retail Pharmacy Class of Trade
**Exhibit 3G. CMS Final Rule:**
Retail Pharmacy by Final Rule Definition

*Manufacturers, marketers & distributors that sell drug product directly to patients are also defined by the Final Rule as being in the retail pharmacy class of trade.*
Exhibit 4

DDD Outlet Subcategory Codes
IMS Health
### OUTLET SUBCATEGORY CODES

Use this chart as a reference tool describing each subcategory code.

If you have any questions about the codes or their meanings, call your IMS Account Manager or Account Service Representative in Totowa at 800-346-2798 or in Plymouth Meeting at 800-523-5333.

**Updated October 2002**

<table>
<thead>
<tr>
<th>CODE</th>
<th>OUTLET DESCRIPTION</th>
<th>CATEGORY</th>
<th>OUTLET DEFINITION</th>
<th>SEQUENCE RANGE</th>
<th>OUTLET EXAMPLE</th>
<th>CLASS OF TRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Miscellaneous retail store with pharmacy</td>
<td>1</td>
<td>An independent retail store with its own pharmacy.</td>
<td>001-147</td>
<td>Charleys Pharmacy</td>
<td>INDEPENDENT PHARMACY</td>
</tr>
<tr>
<td>P0*</td>
<td>Independent pharmacy located in a hospital</td>
<td>1 (2)</td>
<td>An independent retail pharmacy open to public located inside hospital, but not owned by hospital.</td>
<td>001-147</td>
<td>Capital Square Pharmacy</td>
<td>INDEPENDENT PHARMACY</td>
</tr>
<tr>
<td>P1</td>
<td>Independent pharmacy</td>
<td>1</td>
<td>An independent retail pharmacy not part of a chain. Open to the public.</td>
<td>001-147</td>
<td>Marks Pharmacy</td>
<td>INDEPENDENT PHARMACY</td>
</tr>
<tr>
<td>R1</td>
<td>Miscellaneous retail store without a pharmacy</td>
<td>1</td>
<td>Retail outlet without a pharmacy.</td>
<td>400-498 / 900-999</td>
<td>John's Hardware Store</td>
<td>INDEPENDENT PHARMACY</td>
</tr>
<tr>
<td>R5</td>
<td>Independent HBA store (no Rx)</td>
<td>1</td>
<td>Health store includes HBA, retail medical DME, retail medical surgical supplies.</td>
<td>400-498 / 900-999</td>
<td>Community Surgical Supply</td>
<td>INDEPENDENT PHARMACY</td>
</tr>
<tr>
<td>S4*</td>
<td>Depot pharmacy</td>
<td>1 (2)</td>
<td>A pharmacy which purchases for and distributes to a group of local stores, may also be a retail pharmacy.</td>
<td>001-147</td>
<td>Central Pharmacy</td>
<td>INDEPENDENT PHARMACY</td>
</tr>
<tr>
<td>P2</td>
<td>Chain pharmacy with 11 or more stores</td>
<td>1</td>
<td>A retail pharmacy part of a chain. Open to the public.</td>
<td>001-147</td>
<td>CVS #0370</td>
<td>CHAIN PHARMACY</td>
</tr>
<tr>
<td>P3</td>
<td>Chain pharmacy with 4-10 stores</td>
<td>1</td>
<td>A retail pharmacy part of a small chain. Open to the public.</td>
<td>001-147</td>
<td>Shellys Pharmacy #0005</td>
<td>CHAIN PHARMACY</td>
</tr>
<tr>
<td>R6</td>
<td>Chain HBA store (no Rx)</td>
<td>1</td>
<td>Over-the-counter HBA store.</td>
<td>400-498 / 900-999</td>
<td>Vital Life</td>
<td>CHAIN PHARMACY</td>
</tr>
<tr>
<td>V2</td>
<td>Drug Chain Central Fill Pharm not reporting sales to DDD</td>
<td>1</td>
<td>A non-reporting pharmacy that fills prescriptions for other company owned stores and returns the prescription back to the original store.</td>
<td>001-147</td>
<td>Duane Reade</td>
<td>CHAIN PHARMACY</td>
</tr>
<tr>
<td>W4**</td>
<td>Drug chains not reporting sales to DDD</td>
<td>3</td>
<td>Drug chain warehouse of Rx items not reporting sales to DDD.</td>
<td>300-349</td>
<td>USA Distribution Center</td>
<td>CHAIN PHARMACY</td>
</tr>
<tr>
<td>C3</td>
<td>Foodstore/convenience store with pharmacy</td>
<td>1</td>
<td>Small superette or convenience store with its own pharmacy.</td>
<td>001-147</td>
<td>Quick Check Pharmacy</td>
<td>FOODSTORE</td>
</tr>
<tr>
<td>C4</td>
<td>Supermarket with pharmacy</td>
<td>1</td>
<td>Supermarket or grocery store with its own pharmacy.</td>
<td>001-147</td>
<td>Shop Rite - Pharmacy #0123</td>
<td>FOODSTORE</td>
</tr>
<tr>
<td>R3</td>
<td>Food/convenience store without a pharmacy</td>
<td>1</td>
<td>A small superette or convenience store without a pharmacy.</td>
<td>400-498 / 900-999</td>
<td>7-Eleven</td>
<td>FOODSTORE</td>
</tr>
<tr>
<td>R4</td>
<td>Supermarket without a pharmacy</td>
<td>1</td>
<td>Supermarket or grocery store without a pharmacy.</td>
<td>400-498 / 900-999</td>
<td>Shop Rite #0023</td>
<td>FOODSTORE</td>
</tr>
<tr>
<td>C2</td>
<td>Mass merchandise/discount store with pharmacy</td>
<td>1</td>
<td>Discount store with its own pharmacy.</td>
<td>001-147</td>
<td>Costco #0001</td>
<td>MASS MERCHANDISER</td>
</tr>
<tr>
<td>R2</td>
<td>Mass merchandise/discount store without a pharmacy</td>
<td>1</td>
<td>A discount or department store without a pharmacy.</td>
<td>400-498 / 900-999</td>
<td>Kohls</td>
<td>MASS MERCHANDISER</td>
</tr>
</tbody>
</table>
### V1 Mass Merchandiser
- **Central Fill Pharm not reporting sales to DDD**
  - 1 A non-reporting pharmacy that fills prescriptions for other company owned stores and returns the prescription back to the original store.
  - 001-147 none exist at time of publication
  - MASS MERCHANDISER

### W6**
- **Mass merchandise warehouse not reporting sales to DDD**
  - 3 Mass merchandise warehouse of Rx and non Rx items not reporting sales to DDD; includes public storage.
  - 300-349 Family Dollar Stores
  - MASS MERCHANDISER

### Z1 ZIP retail pharmacy
- 1 Used by DDD for retail sales reported only at the ZIP code level for confidential warehouses.
  - 000 NA
  - MASS MERCHANDISER

### G7 Federal government Mail Service pharmacy (not-reporting)
- 2 Federal government mail service/mail-out pharmacy. Does not report sales to DDD.
  - 200-229 Consolidated Mail Order Pharmacy (CMOP)
  - MAIL SERVICE PHARMACY

### I5 Internet Pharmacy (non-reporting)
- 1 (2) An internet pharmacy that does not report to DDD.
  - 400-498 / 900-999 Drugstore Internet Pharmacy
  - MAIL SERVICE PHARMACY

### S5* DDD non-reporting mail service pharmacy
- 1 (2) A mail service pharmacy that does not report sales to DDD.
  - 400-498 / 900-999 Maintenance Prescription
  - MAIL SERVICE PHARMACY

### Z2* ZIP mail service pharmacy sales (to ZIP Code of patient)
- 1 (2) Mail service pharmacy sales reported at the patient ZIP Code level.
  - 149 NA
  - MAIL SERVICE PHARMACY

### Z6* ZIP mail service physician sales (to ZIP Code of physician)
- 1 (2) Mail service pharmacy sales reported at the physician ZIP Code level.
  - 148 NA
  - MAIL SERVICE PHARMACY

### D1* Outpatient clinic/doctor
- 1 (2) Doctor's office, outpatient clinic or multi-specialty clinic.
  - 150-198 / 600-699 / 851-899 Florence Clinic / Dr. John Miller
  - CLINICS

### D2* Dialysis clinic/center/teaching facility
- 1 (2) A dialysis clinic, center or teaching facility.
  - 150-198 / 600-699 / 851-899 Renal Dialysis Center
  - CLINICS

### D3* Family planning, birth control, Planned Parenthood clinic
- 1 (2) Includes birth control, family planning, Planned Parenthood, birthing centers and fertility clinics.
  - 150-198 / 600-699 / 851-899 Planned Parenthood
  - CLINICS

### D5* X-ray, radiology, nephrology, urology clinic
- 1 (2) Doctors office or clinic that conducts one or more of the listed specialized care; including nephrology.
  - 150-198 / 600-699 / 851-899 Imaging Center / Urology Associates
  - CLINICS

### D6* Oncology clinic
- 1 (2) A doctors office or facility that specializes in cancer treatment.
  - 150-198 / 600-699 / 851-899 Oncology Associates
  - CLINICS

### D7* Emergicenters (not hospital affiliated)
- 1 (2) An outpatient emergency treatment center not affiliated with a hospital.
  - 150-198 / 600-699 / 851-899 Emergi Care Center
  - CLINICS

### D8 Orthopedic Clinic/Physician Office
- 1 (2) A doctors office or facility that specializes in orthopedic treatment.
  - 150-198 / 600-699 / 851-899 Orthopedic Associates
  - CLINICS

### G6 VA Outpatient Clinic
- 2 Outpatient care facility owned by the Veterans Administration.
  - 200-229 NJ VA Outpatient Center
  - CLINICS

### H2 Dialysis department/center located inside hospital or on complex
- 2 A dialysis department/clinic located in hospital or on grounds. Can be independently owned or owned by hospital.
  - 200-229 St. Louis Dialysis Center
  - CLINICS

### H3 Outpatient department/clinic/pharmacy at hospital
- 2 Outpatient department owned by hospital.
  - 200-229 Chilton Memorial Hospital OP Departments
  - CLINICS

### H6 Outpatient surgical clinic (not at hospital), includes abortion, oral and plastic surgery clinics
- 2 Outpatient surgical center with 'same day' care.
  - 200-229 Surgi Care Center
  - CLINICS

### Z3* ZIP physician sales
- 1 (2) For physician sales having low dollar volume, DDD reports at the ZIP Code level.
  - 199 NA
  - CLINICS

### A5 Kaiser Permanente warehouse/purchasing agent
- 2 HMO purchasing agent or warehouse servicing Kaiser facilities only.
  - 250-297 Kaiser Foundation Inc.
  - HEALTH CARE PLAN
<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Type</th>
<th>Contact Information</th>
<th>Healthcare Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6</td>
<td>HMO warehouse/purchasing agent (non-Kaiser Permanente)</td>
<td>2 A warehouse or purchasing agent for HMO hospitals only.</td>
<td>250-297</td>
<td>Health Partner HEALTH CARE PLAN</td>
</tr>
<tr>
<td>H5</td>
<td>Kaiser Permanente hospital</td>
<td>2 Kaiser Permanente HMO hospital.</td>
<td>200-229</td>
<td>Kaiser Foundation Hospital HEALTHCARE PLAN</td>
</tr>
<tr>
<td>H7</td>
<td>Kaiser Permanente pharmacy</td>
<td>2 Kaiser Permanente HMO pharmacy.</td>
<td>200-229</td>
<td>Kaiser Pharmacy HEALTHCARE PLAN</td>
</tr>
<tr>
<td>H8</td>
<td>Kaiser Permanente clinic</td>
<td>2 Kaiser Permanente HMO clinic.</td>
<td>200-229</td>
<td>Kaiser Clinic HEALTHCARE PLAN</td>
</tr>
<tr>
<td>N8</td>
<td>Group Net Pharmacy</td>
<td>1 (2) A pharmacy that is owned and operated by a network or group of doctors.</td>
<td>001-147</td>
<td>Clinic Pharmacy of Lakeland HEALTHCARE PLAN</td>
</tr>
<tr>
<td>N9</td>
<td>Group Net Clinic</td>
<td>1 (2) A clinic which is owned and operated by a group of doctors.</td>
<td>150-198 / 600-699 / 851-899</td>
<td>PCA Health Plan HEALTHCARE PLAN</td>
</tr>
<tr>
<td>P8</td>
<td>HMO pharmacy/HMO pharmacy depot (non-Kaiser Permanente)</td>
<td>1 (2) A pharmacy owned by a specific health plan (HMO), which services members only.</td>
<td>001-147</td>
<td>Cigna Pharmacy HEALTHCARE PLAN</td>
</tr>
<tr>
<td>P9</td>
<td>HMO clinic/HMO purchasing agent (non-hospital, non-Kaiser Permanente)</td>
<td>1 (2) A clinic owned by a specific health plan (HMO), which services members only. Not open to general public.</td>
<td>150-198 / 600-699 / 851-899</td>
<td>Cigna Clinic HEALTHCARE PLAN</td>
</tr>
<tr>
<td>S2</td>
<td>HMO hospital (non-Kaiser Permanente)</td>
<td>2 A hospital owned by a specific HMO that services members only.</td>
<td>200-229</td>
<td>Group Health Eastside Hospital HEALTHCARE PLAN</td>
</tr>
<tr>
<td>U0</td>
<td>Workmen Compensation Clinic</td>
<td>1 (2) A facility that treats work-related injuries only. Employees injured on job, worker's compensation. Not open to general public.</td>
<td>150-198 / 600-699 / 851-899</td>
<td>Iowa Occupational Clinic HEALTHCARE PLAN</td>
</tr>
<tr>
<td>U3</td>
<td>Union Shop Clinic</td>
<td>1 (2) A facility that treats union members only, not open to the general public.</td>
<td>150-198 / 600-699 / 851-899</td>
<td>Union &amp; Teamsters Clinic HEALTHCARE PLAN</td>
</tr>
<tr>
<td>U4</td>
<td>Union Shop Pharmacy</td>
<td>1 (2) A non-reporting pharmacy open only to members of a particular union. Not open to the general public.</td>
<td>001-147</td>
<td>Teamsters Union Pharmacy HEALTHCARE PLAN</td>
</tr>
<tr>
<td>U8</td>
<td>Workmen Compensation Pharmacy</td>
<td>1 (2) A non-reporting pharmacy open only to work related injuries, worker's compensation. Not open to the general public.</td>
<td>001-147</td>
<td>Occupational Care Pharmacy HEALTHCARE PLAN</td>
</tr>
<tr>
<td>G9</td>
<td>VA nursing home</td>
<td>2 VA nursing home owned by the Federal government.</td>
<td>200-229</td>
<td>US Naval Home NURSING HOME</td>
</tr>
<tr>
<td>N1</td>
<td>Nursing home residential care facility without a hospital</td>
<td>1 (2) Residential care facility with skilled nursing service; includes rest homes, old age homes and convalescent homes.</td>
<td>500-549</td>
<td>Manor Care Center NURSING HOME</td>
</tr>
<tr>
<td>N2</td>
<td>Nursing home and institutional provider (100% of business)</td>
<td>1 (2) A closed door pharmacy which does unit-dose repackaging or supplies to multiple nursing homes. No retail business.</td>
<td>550-559</td>
<td>Medilife Pharmacy - Long Term Care NURSING HOME</td>
</tr>
<tr>
<td>N3</td>
<td>Visiting nurse (home health care services)</td>
<td>1 (2) A home health care organization that provides setup maintenance in home; includes visiting nurse services and IV therapy.</td>
<td>400-498 / 900-999</td>
<td>Apria Health Care NURSING HOME</td>
</tr>
<tr>
<td>N4</td>
<td>Chain NH Provider (100% business)</td>
<td>1(2) Closed door Chain Pharmacy supplying multiple nursing homes. Not open to public.</td>
<td>550-559</td>
<td>Eckerd Nursing Home Phcy NURSING HOME</td>
</tr>
<tr>
<td>P7</td>
<td>NIH pharmacy (servicing multiple NIFS and may include retail business) &amp; Purchasing Service</td>
<td>1 (2) A pharmacy that does unit dose packaging and also does retail business.</td>
<td>550-559</td>
<td>Harrington Pharmacy NURSING HOME</td>
</tr>
<tr>
<td>Z7</td>
<td>ZIP nursing home patient sales (to ZIP Code of patient)</td>
<td>1 (2) Nursing home sales reported at the patient ZIP Code level.</td>
<td>597</td>
<td>NA NURSING HOME</td>
</tr>
<tr>
<td>Z8</td>
<td>ZIP nursing home physician sales (to ZIP Code of physician)</td>
<td>1 (2) Nursing home sales reported at the physician ZIP Code level.</td>
<td>599</td>
<td>NA NURSING HOME</td>
</tr>
<tr>
<td>Z9</td>
<td>ZIP nursing home</td>
<td>1 (2) Used by DDD for nursing home sales reported only at the ZIP Code level for confidential warehouses.</td>
<td>598</td>
<td>NA NURSING HOME</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Notes</td>
<td>Phone Numbers</td>
<td>Agency</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>A2</td>
<td>Non-reporting city, county, &amp; state purchasing agencies and health departments</td>
<td>Includes city/county/state purchasing agent and health departments.</td>
<td>250-297</td>
<td>Wayne Health Department</td>
</tr>
<tr>
<td>A3</td>
<td>Unit dose, nuclear pharmacy</td>
<td>A pharmacy for cancer-fighting prescriptions only.</td>
<td>250-297</td>
<td>Syncor Inc.</td>
</tr>
<tr>
<td>A8</td>
<td>Non-reporting hospital/purchasing agent</td>
<td>Purchasing agent/warehouse for multiple hospitals.</td>
<td>250-297</td>
<td>Carolinas Healthcare System</td>
</tr>
<tr>
<td>H1</td>
<td>Hospitals (non-federal) including pharmacy, departments, clinics &amp; physicians at hospital</td>
<td>Independent medical/surgical hospitals.</td>
<td>200-229</td>
<td>Chilton Memorial Hospital</td>
</tr>
<tr>
<td>H4</td>
<td>Special inpatient treatment facility (hospice, drug/alcohol rehabilitation, etc.)</td>
<td>Specialized treatment centers; includes drug/alcohol, mental illness, acute care and specialized care for children.</td>
<td>200-229</td>
<td>Kessler Institute</td>
</tr>
<tr>
<td>W8*</td>
<td>Non-reporting hospital/medical/surgical supply warehouse</td>
<td>Distributes medical/surgical supplies to hospitals, institutions and physicians; not open to general public.</td>
<td>400-498 / 900-999</td>
<td>Atlas Medical Supply</td>
</tr>
<tr>
<td>Z4</td>
<td>ZIP hospital sales</td>
<td>Used by DDD for hospital sales reported only at the ZIP Code level for confidential warehouses.</td>
<td>299</td>
<td>NA</td>
</tr>
<tr>
<td>H9</td>
<td>Outpatient PHS or Disproportionate Clinic</td>
<td>Public Health Service or Disproportionate Clinics.</td>
<td>200-229</td>
<td>Metropolitan Hospital PHS Clinic</td>
</tr>
<tr>
<td>A4</td>
<td>Federal government depot/hospital agent (less than $10,000 per month)</td>
<td>Purchasing agent/depot for federal government hospitals.</td>
<td>250-297</td>
<td>Federal Gov't Purchasing Agent</td>
</tr>
<tr>
<td>F3</td>
<td>Native American Indian Hospital</td>
<td>Native American Indian Inpatient facility/hospital.</td>
<td>200-229</td>
<td>North Navajo Medical Center</td>
</tr>
<tr>
<td>F4</td>
<td>Native American Indian Clinic</td>
<td>Native American Indian Outpatient facility/clinic.</td>
<td>200-229</td>
<td>Catawba Indian Health Services</td>
</tr>
<tr>
<td>G1</td>
<td>US Ships</td>
<td>Home port as identified in ZIP Code directory.</td>
<td>200-229</td>
<td>USS John F. Kennedy</td>
</tr>
<tr>
<td>G2</td>
<td>VA hospitals</td>
<td>Inpatient care facility owned by the Veterans Administration.</td>
<td>200-229</td>
<td>VA Hospital - Seattle</td>
</tr>
<tr>
<td>G3</td>
<td>Including Military, Federal NH; does not include VA</td>
<td>Inpatient care facility owned by the Federal government. Does not include Native American Indian inpatient/hospital facilities.</td>
<td>200-229</td>
<td>US ARMY Hospital</td>
</tr>
<tr>
<td>G4</td>
<td>Federal gov't (non-VA) outpatient care facility including Military &amp; USPH</td>
<td>Outpatient care facility owned by the Federal government. Does not include Native American Indian inpatient/hospital facilities.</td>
<td>200-229</td>
<td>US ARMY Clinic</td>
</tr>
<tr>
<td>S8</td>
<td>Federal government depot/hospital purchasing agent (more than $10,000 per month)</td>
<td>Purchasing agent/depot for federal government hospitals.</td>
<td>250-297</td>
<td>Federal Gov't Depot</td>
</tr>
<tr>
<td>M1*</td>
<td>City/county/state and miscellaneous accounts; includes city jails and juvenile detention centers</td>
<td>Non-health related office. Can include city jails, detention centers, fire departments &amp; industrial accounts.</td>
<td>400-498 / 900-999</td>
<td>Totowa Fire Department</td>
</tr>
<tr>
<td>M2*</td>
<td>County/state prisons</td>
<td>County or state correctional facility.</td>
<td>400-498 / 900-999</td>
<td>Correction Center of NW Ohio</td>
</tr>
<tr>
<td>M3*</td>
<td>Federal prisons (not city jails or juvenile detention centers)</td>
<td>Correctional facility owned by federal government.</td>
<td>400-498 / 900-999</td>
<td>Federal Prison Camp</td>
</tr>
<tr>
<td>M5*</td>
<td>Veterinarian, animal hospital; veterinarian supply warehouse</td>
<td>A doctor of veterinarian medicine, animal hospital and veterinarian supply warehouse.</td>
<td>400-498 / 900-999</td>
<td>Little Falls Pet Hospital</td>
</tr>
<tr>
<td>M6*</td>
<td>Residential school, college/university without a hospital, student health, research</td>
<td>A residential school, college/university without a hospital.</td>
<td>400-498 / 900-999</td>
<td>Montclair University</td>
</tr>
<tr>
<td>E1</td>
<td>Export Company</td>
<td>Companies with a US address operating as exporters/importers.</td>
<td>9700-999</td>
<td>World Wide Pharmacy</td>
</tr>
<tr>
<td>G5*</td>
<td>Federal government non-health related account</td>
<td>Federal or military facility that is non-health related.</td>
<td>400-498 / 900-999</td>
<td>US Coast Guard</td>
</tr>
<tr>
<td>Code</td>
<td>Company Name</td>
<td>Sales Reporting</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------</td>
<td>-----------------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>V3</td>
<td>Grocery Central Fill Pharm not reporting sales to DDD</td>
<td>1</td>
<td>A non-reporting pharmacy that fills prescriptions for other company owned stores and returns the prescription back to the original store. 001-147 HE Butt MISCELLANEOUS</td>
<td></td>
</tr>
<tr>
<td>V4</td>
<td>Drug Wholesaler Central Fill Pharm not reporting sales to DDD</td>
<td>1</td>
<td>A non-reporting pharmacy that fills prescriptions for other pharmacies and returns the prescription back to the original store. 001-147 AmeriSource Bergen MISCELLANEOUS</td>
<td></td>
</tr>
<tr>
<td>W2**</td>
<td>Drug wholesaler not reporting sales to DDD</td>
<td>3</td>
<td>Drug wholesaler of Rx items not reporting sales to DDD; can also be a repacker of Rx items. 300-349 Dawn Pharmaceutical MISCELLANEOUS</td>
<td></td>
</tr>
<tr>
<td>W5**</td>
<td>Grocery warehouse not reporting sales to DDD</td>
<td>3</td>
<td>Grocery warehouse of Rx and non Rx items not reporting sales to DDD. 300-349 Affiliated Foods MISCELLANEOUS</td>
<td></td>
</tr>
<tr>
<td>W7**</td>
<td>Service merchandise/rack jobber/OTC warehouse not reporting sales to DDD</td>
<td>3</td>
<td>Warehouse for non Rx items. 300-349 Robert Enterprises MISCELLANEOUS</td>
<td></td>
</tr>
<tr>
<td>Z5*</td>
<td>ZIP miscellaneous</td>
<td>1 (2)</td>
<td>One time or low, infrequent miscellaneous retail sales reported by suppliers. 499 NA MISCELLANEOUS</td>
<td></td>
</tr>
<tr>
<td>A7</td>
<td>Reporting hospital warehouse/purchasing agent</td>
<td>2</td>
<td>A hospital warehouse or purchasing agent that reports sales to DDD; includes city/county/state agencies and health departments. 250-297 Appalachian Regional Healthcare N/A</td>
<td></td>
</tr>
<tr>
<td>I0</td>
<td>Internet Pharmacy (reporting to DDD)</td>
<td>1</td>
<td>An internet pharmacy that reports sales to DDD 400-498 / 900-999 Drugstore Internet Pharmacy N/A</td>
<td></td>
</tr>
<tr>
<td>S0</td>
<td>DDD reporting mail service pharmacy</td>
<td>1</td>
<td>A mail service pharmacy that includes IV, workmen's comp. and union shop pharmacies that reports sales to DDD. 400-498 / 900-999 Caremark N/A</td>
<td></td>
</tr>
<tr>
<td>S1*</td>
<td>DDD reporting nursing home pharmacy</td>
<td>1 (2)</td>
<td>A nursing home pharmacy that reports sales to DDD. 550-559 NA N/A</td>
<td></td>
</tr>
<tr>
<td>S9*</td>
<td>Pharmaceutical manufacturers</td>
<td>1 (2)</td>
<td>A company that produces and manufactures pharmaceutical products. 400-498 / 900-999 Barr Labs N/A</td>
<td></td>
</tr>
<tr>
<td>W1</td>
<td>Drug wholesaler reporting sales to DDD</td>
<td>9</td>
<td>Drug wholesaler of Rx items reporting sales to DDD. 705-720 AmeriSource Bergen N/A</td>
<td></td>
</tr>
<tr>
<td>W3</td>
<td>Drug chains reporting sales to DDD</td>
<td>9</td>
<td>Drug chain warehouse of Rx items reporting sales to DDD. 705-720 CVS N/A</td>
<td></td>
</tr>
<tr>
<td>W9</td>
<td>Reporting hospital/medical/surgical supply warehouse</td>
<td>1</td>
<td>Medical/surgical warehouse reporting sales to DDD. 400-498 / 900-999 Diagnostic Imaging N/A</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
Category 1 - Retail
Category 2 - Hospital
* Category 1 (2) - Non-Retail or moveable (Retail categories can be moved to Category 2 and can be seen at the outlet level following DDD policies)
**Category 3 - Non-reporting warehouses (Can be seen at outlet level for client's own products or in TCR reports at policy levels regarding territory or outlet level)
Category 9 - Reporting warehouses
Exhibit 5

Audit of Chain and Independent Pharmacies, Mass Merchandisers, Proprietary Stores and Foodstores with Pharmacies
IMS Health, March 2006
Country: United States

Audit of: Chain and independent Pharmacies, Mass Merchandisers, Proprietary Stores and Foodstores with Pharmacies

Publication Cycle: Monthly (this update at March 2006)

Universe Size: Warehouses: 300 Wholesalers, 104 Drug Chains, 44 Food Chains. Stores: 37,209 Independent and Chain Drugstore, 8,511 Mass Merchandisers, 1,074 Proprietary Stores, 9,874 Food Stores with Pharmacies

Sample:

Size: Changes in Sample: Changes to the panel (1992):
Increased number of drug wholesalers reporting non-census covered products from 24 to 39.
Increased number of drug chain warehouses reporting non-census covered products from 6 to 10.
Added five foodstore chain organisations with pharmacies.

Added Hawaii and Alaska

Type of Sampling: N/A

Stratification Type & Criteria: N/A

Selection Method: N/A

Reporting Time: N/A

Projection:

Projection methodology depends upon three sources of purchase data for each product.

1. **Indirect Census**

   The primary source of indirect data is a near census of warehouses accessed via the Drug Distribution Data (DDD™) system. The census data is adjusted to reflect non-covered warehouses. The factor utilised varies each month according to the actual number of reporting warehouses.
2. **Indirect Sample**

A sample warehouse panel supplements the census data by providing sales of non-DDD covered products. Sample warehouse data are projected nationally to reflect non-covered warehouses. This projection factor varies each month relative to the dollar volume reported by the sample warehouses in comparison to universe dollar figures.

3. **Direct Sample**

Approximately 100 manufacturers provide direct sales to DDD™ which are used in this report.

Non-reporting manufacturer direct sales are not estimated. Based in 1998 data, this omission is approximately 0.5% of National Sales Perspectives™ national estimates.

Note: For those products with both direct and indirect distribution, each data source is projected using its own methodology and the resulting purchase figures are combined to determine national estimates.

**Changes to Projected Data (1992)**

Direct (microfilm) data projected to a reduced universe reflecting a decrease in independent pharmacies purchasing direct from the manufacturer. This results in decreased sales for direct data.

Indirect census coverage is now 98% (up from 94%) of the total dollar shipments made by drug wholesalers and chain warehouses. This increased coverage requires a lower projection factor, resulting in decreased sales for census covered products.

Regional projections (9 census regions) added for indirect data due to increase in indirect sample.

These changes in the database should be taken into consideration when trending data prior to 1992.

**Local Currency:** U.S. Dollars

**Price Structure:**

- **Price Level used to calculate Local Values:** Pharmacy Purchase Price
- **Price Level used to calculate US $:** N/A
- **Level of Printed Unit Price:** N/A
- **Price structure/conversion:**
Country: United States

Audit of: Chain and independent Pharmacies, Mass Merchandisers, Proprietary Stores and Foodstores with Pharmacies

Publication Cycle: Monthly (this update at March 2006)

Universe Size:
Warehouses: 300 Wholesalers, 104 Drug Chains, 44 Food Chains.
Stores: 37,209 Independent and Chain Drugstore, 8,511 Mass Merchandisers, 1,074 Proprietary Stores, 9,874 Food Stores with Pharmacies

Sample:

Size: Changes in Sample:
Changes to the panel (1992):
Increased number of drug wholesalers reporting non-census covered products from 24 to 39.

Increased number of drug chain warehouses reporting non-census covered products from 6 to 10.

Added five foodstore chain organisations with pharmacies.

Added Hawaii and Alaska

Type of Sampling: N/A

Stratification Type & Criteria: N/A

Selection Method: N/A

Reporting Time: N/A

Projection:
Projection methodology depends upon three sources of purchase data for each product.

1. **Indirect Census**
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2. **Indirect Sample**

A sample warehouse panel supplements the census data by providing sales of non-DDD covered products. Sample warehouse data are projected nationally to reflect non-covered warehouses. This projection factor varies each month relative to the dollar volume reported by the sample warehouses in comparison to universe dollar figures.

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Note: For those products with both direct and indirect distribution, each data source is projected using its own methodology and the resulting purchase figures are combined to determine national estimates.

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These changes in the database should be taken into consideration when trending data prior to 1992.

**Local Currency:** U.S. Dollars

**Price Structure:**

- **Price Level used to calculate Local Values:** Pharmacy Purchase Price
- **Price Level used to calculate US $:** N/A
- **Level of Printed Unit Price:** N/A
- **Price structure/conversion:**
Relative to Wholesaler:

Based on annual information received from the HDMA¹, we estimate that the wholesaler’s mark-up is approximately 5%. This indicates that Wholesaler’s portion of IMS National Sales Perspectives™ would be approximately 95%. IMS National Sales Perspectives™ relative to the wholesaler dollars would be 105%.

<table>
<thead>
<tr>
<th>Wholesaler (PP=100)</th>
<th>Pharmacy (PP=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>105</td>
</tr>
<tr>
<td>95</td>
<td>100</td>
</tr>
</tbody>
</table>

Relative to Manufacturer:

Based on both annual information received from the HDMA¹ and IMS National Sales Perspectives™ channels’ portion direct sales, the ex-manufacturer adjustment is updated annually and is currently 0.96. This indicates that the manufacturer’s portion of IMS National Sales Perspective™ would be approximately 96%. IMS National Sales Perspective™ relative to the manufacturer dollars would be 104%.

<table>
<thead>
<tr>
<th>Manufacturer (PP=100)</th>
<th>Pharmacy (PP=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>104</td>
</tr>
<tr>
<td>96</td>
<td>100</td>
</tr>
</tbody>
</table>

¹ 2004 HDMA Industry Profile & Healthcare Factbook. HDMA is the Healthcare Distribution Management Association.

**Total Prescription Pharmaceutical Market Expressed in Percentage Terms (1):**

<table>
<thead>
<tr>
<th></th>
<th>RETAIL</th>
<th>NON-RETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indep. Chain Mass</td>
<td>Food-</td>
</tr>
<tr>
<td>Food- store W/Pharm</td>
<td>49%</td>
<td>9%</td>
</tr>
<tr>
<td>Total Rx Market</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All numbers are rounded.

Market Segments Covered by IMS National Sales Perspectives™: Retail Pharmacies, channels in this book (Independents, Chains, Mass merchandisers and Foodstores with pharmacies) = 58%

Market Segments Covered by IMS National Sales Perspectives™ Retail - all channels = 72%

Market Segments Covered by IMS National Sales Perspectives™ Non-retail - all channels = 28%

(1) Sources: Retail and Provider Perspective™. Rx. Sales.
Panel Design:

The data in this report represent the unit and dollar purchases made by retailers including foodstores with pharmacies of Rx, OTC, and generic pharmaceutical products. The purchase information obtained from warehouses and a sample of retail outlets is projected to nine census regions (50 states). The price reflected is the actual cost to retailers for the products, whether purchased from a manufacturer or a warehouse (98% of total pharmaceuticals purchased by retail outlets are from wholesalers and chain warehouses). However, prompt payment cash discounts and bottomline invoice discounts are not reflected in the dollar purchase amounts.

All data in the report are in thousands of units and dollars.

Warehouses

The national total of warehouses and the IMS representation is as follows:

<table>
<thead>
<tr>
<th>Type of Warehouse</th>
<th>National Total</th>
<th>IMS Health Representation</th>
<th>Sample % of National Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesaler (d)</td>
<td>303</td>
<td>240</td>
<td>79.2%</td>
</tr>
<tr>
<td>Chain (e)</td>
<td>104</td>
<td>58</td>
<td>55.8%</td>
</tr>
<tr>
<td>Food Chain (f)</td>
<td>44</td>
<td>14</td>
<td>31.8%</td>
</tr>
</tbody>
</table>

The national total of warehouses and the IMS indirect sample is as follows:

<table>
<thead>
<tr>
<th>Type of Warehouse</th>
<th>Sample % of National Total</th>
<th>National Total</th>
<th>IMS Representation</th>
<th>Store Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesaler (g)</td>
<td>12.9%</td>
<td>303</td>
<td>39</td>
<td>N/A</td>
</tr>
<tr>
<td>Chain (h)</td>
<td>4.8%</td>
<td>104</td>
<td>5</td>
<td>399</td>
</tr>
<tr>
<td>Food Chain (i)</td>
<td>11.4%</td>
<td>44</td>
<td>5</td>
<td>152</td>
</tr>
</tbody>
</table>

(a) -The universe figures shown are based on store counts developed for the IMS National Prescription Audit.

(b) -The universe figures shown for mass merchandisers with pharmacies are based on store counts developed for the IMS National Prescription Audit. The universe figures for mass merchandisers without pharmacies are based on the 2004 Chain Store Guide Directory of Discount & General Merchandise Houses. The universe includes all stores in this directory with 10,000 or more square feet of floor space, at least three distinct merchandise lines and a drug and/or ethical pharmacy department.

(c) -The universe figures for proprietary stores without pharmacies were estimated based on the most recent Census of Business. The 2004 Chain Store Guide Directory of Drug Store and HBC Chains was used in refining the census data.

(d) -The universe of wholesale warehouses is based on the DDD™ Warehouse Master List (developed by Drug Distribution Data).

(e) -The universe of chain warehouses is based on the DDD™ Warehouse Master List (developed by Drug Distribution Data).
(f)  -The universe of food chain warehouses is based on the DDD™ Warehouse Master List (developed by Drug Distribution Data).

(g)  -Data not collected at store level; independent pharmacies and chains not served by a chain warehouse are represented in the sample of 39 wholesalers, regionally projected and summed to a national total.

(h)  -A sample of drugstores was selected from the five drug chains. Indirect purchases made by these stores are projected regionally and summed to a national level.

(i)  -A sample of food stores with pharmacies was selected from the five food chains. Indirect purchases made by these stores are regionally projected and summed to a national total.
Exhibit 6

Retail Perspective: IMS Audit Information
IM Health, 2006
Retail Perspective

What Retail Perspective Is Designed to Do

The Retail Perspective audit (formerly U.S. Drugstore) is a continuing monthly audit designed to measure, in projected dollars and units, pharmaceutical products purchased by independent pharmacies, chain store pharmacies, and food store pharmacies in all 50 states.

All Retail Perspective data prior to January 1992 appears in the chain store channel. Starting with January 1992, this channel was split into two separate channels: one for chain stores and one for independent pharmacies. Food store channel data is available starting with January 1992.

Suggested Uses for Retail Perspective

This audit enables you to analyze market data at the product package level for your products and those of your competitors. Use Retail Perspective when you need to study:

- Market data, such as dollar or unit volume, pricing, market share, and percentage change
- Long-term market trends
- New product introductions, including distribution and the impact upon established products
- Effects of promotional deals
- Seasonality
- New packaging and new form presentations

Data Elements

The data elements are listed below in alphabetical order within their respective categories. Each Dataview name (in bold typeface) is followed by the IMSPACT name (in parentheses). Then a description of the element is given. Refer to the Dataview Help for more detailed information and special considerations for selecting the elements in database and report queries.

Classification

Anatomical Therapy Class 1 - 4 (ATC1, ATC2, ATC3, ATC4). The Anatomical Therapeutic Classification (ATC) of products is the international equivalent of the Uniform System of Classification (USC) scheme. (However, ATCs and USCs are mostly not interchangeable.) ATC categories often relate to human body organs or systems. Use ATCs to duplicate your European divisions’ views of the U.S. markets, to combine products into markets where USCs are split, or to locate new products in areas of interest. The lowest level (ATC4) represents the finest level of product classification. Each higher level includes the level beneath it.
Uniform System of Classification 2 - 5 (USC2, USC3, USC4, USC5). This system of classification was developed by IMS to categorize all pharmaceutical products. In this system, USC5 (the lowest level) represents the finest level of product classification. Each higher level (USC4, USC3, and USC2) includes the level beneath it. All USC numbers have five places, as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th># Digits</th>
<th># Zeroes</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>USC2</td>
<td>2 digits</td>
<td>3 zeroes</td>
<td>15000</td>
</tr>
<tr>
<td>USC3</td>
<td>3 digits</td>
<td>2 zeroes</td>
<td>15100</td>
</tr>
<tr>
<td>USC4</td>
<td>4 digits</td>
<td>1 zero</td>
<td>15130</td>
</tr>
<tr>
<td>USC5</td>
<td>5 digits</td>
<td>No zeroes</td>
<td>15131</td>
</tr>
</tbody>
</table>

You can review lists of USC codes using the Dataview Market Definition function.

Corporation/Manufacturer

Corporation (CRP). A corporation has divisions or subsidiaries that manufacture pharmaceutical products. Selecting the corporation will total sales from all subsidiaries.

Manufacturer/Company (MNF or MFR). This is the pharmaceutical company that manufactures or promotes a product. Choosing a manufacturer results in sales for each selected company.

Molecule/Chemical

Chemical Family (FAM). Chemical families are defined in the IMS publication, *Index of Drug Chemicals*. You can select a chemical family by either numeric code or family name. It is recommended that you select Molecule in your database contents if you intend to use Chemical Family.

Chemical Salt (SALT). Use Chemical Salt to qualify a molecule. You can select Chemical Salt by either numeric code or by salt name. It is recommended that you avoid adding Chemical Salt to your market definition, since this will create a very large database. To examine chemical salts in kilograms, you must select Molecule and Chemical Salt in your database contents.

Chemical Sub-Family (SUBFAM). Chemical sub-families are defined in the IMS publication, *Index of Drug Chemicals*. You can select a chemical sub-family by either numeric code or sub-family name. It is recommended that you select Molecule in your database contents if you intend to use Chemical Sub-Family.
Molecule (MOL). The molecule is the lowest level of the chemical family and sub-family classification. You can use this data element to examine products that contain a particular chemical entity. Molecules are defined in the IMS publication, *Index of Drug Chemicals*. You can select Molecule either by numeric code or molecule name. See the Dataview Help for guidelines on using this data element.

Molecule Composition (COMP). Use this element when you want to restrict chemical or product selections to one or more chemical components. Select *Plain* to restrict selections to single-entity products. Select *Combination* to restrict selections to products containing a specified molecule and one or more other molecules. You can use this element as a qualifier for Molecule, Chemical Family, Chemical Sub-Family, USC, Product, and so forth.

Others

Channel/Source (CHAN). You can select and/or display Retail Perspective data by channel. Valid channels for this audit are: independent pharmacies, chain stores pharmacies, and food store pharmacies. (All data prior to 1992 is displayed in the chain channel, since channel break-out is not available prior to the January 1992 data cycle. Food store data is available beginning in January 1992.)

- **Independent Pharmacies** (INDSTR). The independent channel includes all sales to independent pharmacies, as well as non-prescription product sales to proprietary stores that do not include a pharmacy.
- **Chain Store Pharmacies** (CHNSTR). The chain channel covers chain drugstores, mass merchandisers, and discount houses for both Rx and over-the-counter sales.
- **Food Stores w/Pharmacies** (FS). The food store channel includes only those sales to food stores with in-store pharmacies. These sales include both Rx and over-the-counter sales to the entire store.

Product

Ethical/Proprietary Indicator (EPI). This indicator enables you to limit selected data to only ethical or proprietary brands. Ethical products are marketed to healthcare professionals and often require a prescription. Proprietary products are marketed primarily to consumers and do not require a prescription.

Package (PCK). Packaging refers to the particular form, strength, and size of a product manufactured by a given company and purchased by stores for resale. The meaning of the three-digit package code varies from product to product. For example, a package code of 001 for Product A may indicate a bottle of 500 200-mg tablets, while the package code for Product B may indicate a bottle of 1,000 250-mg capsules.

Package Month (PCK-MTH). This is the data month in which a given product package first appeared in the audit. Package month recognition depends on the sales volume tracked by the audit, not upon promotional activity.
Package Size (PCK-SIZ). Package size refers to the number of individual units contained in the selling package of a particular product type. The meaning of "units" varies, depending on the form of the product.

- Tablets and capsules are shown as a single-package unit. For example, a bottle containing 500 capsules has a package size of 1. (The actual number of capsules in the bottle is measured by package volume, rather than package size.)

- Injectable products usually have package sizes greater than one. For example, a 10-pack of injectable vials has a package size of 10, and a dozen bottles of cough syrup has a package size of 12.

Product (PRD). This element includes the drugs or vitamins manufactured and sold by pharmaceutical companies. You can select a product by either a numeric code or the product name.

Product Age (PRD-AGE). Product age is the number of years the product has been on the market, based on its initial appearance in the sales audits.

Product Form 1 - 3 (FRM1, FRM2, FRM3). Product Form refers to the physical dosage form of a drug, such as oral or injectable. This system consists of three levels, with each successive level containing more detail about the product form. For example, Product Form 1 = O contains all orals, Product Form 2 = OL contains all oral liquids, and Product Form 3 = OLS contains all oral liquids in syrup form. You can review a list of form codes using the Dataview Market Definition function. To include different levels of product form in your database, select each level for which you want to see totals.

Product Strength (STR). Most products are available in different potencies or strengths. For example, a product may be offered in both a 250 mg tablet and a 500 mg capsule.

Product Year (PRD-YEAR). This is the year the product was first introduced into the market.

RX Status (RXSTATUS). Use this element if you want to include prescription status in your database or report. RX Status is most meaningful when used to limit Product or a USC to data having a particular prescription status. RX Status can be either Legend (prescription required) or Non-Legend (no prescription required).

Three-Letter Form Code 1 - 3 (TLC1, TLC2, TLC3). This is the application form for classifying a product. Product form encompasses two classification systems—Product Form and Three-Letter Form Code. Both systems consist of three levels, with each successive level containing more detail about the product form. For example, TLC1=D contains all systemic oral liquids, TLC2=DC contains oral drops, and TLC3=DCB contains long-acting oral drops. In general, Three-Letter Form Codes provide a finer breakdown of Product Form. You can review a list of Three-Letter Codes using the Dataview Market Definition function.
The Retail Perspective measures are listed below in alphabetical order. Refer to the Dataview Help for special considerations in using these measures.

**Retail Diagnosis Value** (DOL/DRG/DV). For each product/form/strength combination, this measure apportions the Retail Dollars by diagnosis based on the percentage of that product’s NDTI drug uses each diagnosis represents. This measure is based on non-hospital drug uses for the product and does not include any food store sales dollars. This measure is available only in the Report Definition function and only if you subscribe to NDTI.

**Retail Diagnosis Value - New** (DOL/DRG/DVN). For each product/form/strength combination, this measure apportions the Retail Dollars by diagnosis based on the percentage of that product's "total consumption" each diagnosis represents. The total consumption is calculated by multiplying the signa by the length of therapy. This measure is based on non-hospital drug uses for the product and includes food store sales dollars. This measure is available only in the Report Definition function and only if you subscribe to NDTI.

**Retail Dollars** (DOL/DRG). This measure reports the amount of money pharmacies spent on a product acquired from manufacturers and drug wholesalers.

**Retail Eeachs** (EA/DRG). This measure represents the number of single items (such as vials and syringes) contained in a unit or shipping package and purchased by pharmacies in a specific time period. An each may be the same as a unit if the unit does not subdivide into packages. Eeachs are most meaningful at the package level, since packages and their subunits may contain different quantities of strengths and volumes.

**Retail Eeachs Average Price** (DOL/DRG/EAAP). The measure is calculated by dividing purchase dollars by eeachs. This measure is meaningful for injectables, powders, ointments, inhalants, and any other form shipped in packages containing single items that can be broken apart. The average each price prints to three decimal places. For example, 3.277 means an average each price of $3.277.

**Retail Extended Units** (EU/DRG). Extended units is the number of tablets, capsules, milliliters, or grams purchased. This number is calculated by multiplying the number of units by the volume and size of each package reported. Extended units are often meaningless above the form/strength level, because a product may have different forms and strengths and therefore a different type of unit. Eeachs and units are most meaningful at the package level.

**Retail Extended Units Average Price** (DOL/DRG/EUAP). This is the average purchase price of a tablet, capsule, milliliter, or other extended unit in the specified time period. It is meaningful only at the package level.
Retail Historical Price (DOL/DRG/HP). This is the average price of a particular package within a specified time period. It is calculated by dividing dollars by units. Historical price is printed to two decimal places. For example, 14.48 means a package price of $14.48. Historical price is most meaningful at the package level.

Retail Kilograms (KG/DRG). This measure reports the chemical weight of quantities purchased. You must select Molecule, Chemical Family, and or Chemical Sub-Family in the database contents or report rows to obtain kilogram weight. Weights are reported in metric measures, using the following weight symbols:

- A - Thousand Tons
- T - Ton
- K - Kilogram
- G - Gram
- M - Milligram
- X - Microgram
- Z - 1,018 Units
- Y - 1,015 Units
- U - 1,012 Units
- V - 109 Units
- S - 106 Units
- E - 1,000 Units

Examples:

- 4T3 = 4.3 metric tons or 4 metric tons + 300 kilograms
- 24K9 = 24.9 kilograms or 24 kilograms + 900 grams

Retail Units (UN/DRG). This measure represents the number of individual shipping packages purchased by pharmacies in a specific time period. Units are most meaningful at the package level, since packages and their subunits contain different quantities of extended units.

Special Considerations

How Retail Perspective Relates to Factory Sales Figures

There are several reasons why analysts may encounter difficulty in attempting to match IMS estimates against factory sales:

- In many cases, it is difficult for companies to ascertain what portion of factory sales are made to the specific channels covered in Retail Perspective. The audit does not include purchases made by department store pharmacies, by mail order, or by dispensing HMOs or physicians.

- Timing of transactions is rarely comparable. Factory sales may be recorded in December, while retail outlet purchase of the same items may not occur until February.

- Translation of factory sales dollars to retail acquisition dollar levels is imprecise.

- Private label business may appear in the audit identified under the name on the label.

- Changes in wholesaler inventory levels may occur (inflow vs. outflow).
How Retail Perspective Data Relate to NPA Data

You may find instances where Retail Perspective data does not match NPA data. While annual trends for Retail Perspective and NPA are generally similar, month-to-month data may show different patterns. Retail Perspective captures purchases by pharmacies and stores; these may not immediately reflect the actual consumer purchase pattern captured by NPA.
Exhibit 7

Audit of Mail Service Sales
IMS Health, March 2006
Country: United States

Audit of: Mail Service Sales

Publication Cycle: Monthly (this update at March 2006)

Universe Size: Federal Government and Non-Government mail service pharmacies captured through DDD™. This includes approximately 90% of the mail service market.

Sample: Indirect Sample – the national total of warehouses and the IMS indirect sample of warehouses selling to mail service pharmacies is as follows:

<table>
<thead>
<tr>
<th>Type of Warehouse</th>
<th>National Total</th>
<th>IMS Representation</th>
<th>Sample % of National Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesaler (2)</td>
<td>303</td>
<td>240</td>
<td>79.2%</td>
</tr>
<tr>
<td>Chain (2)</td>
<td>104</td>
<td>58</td>
<td>55.8%</td>
</tr>
</tbody>
</table>

(2) The universe of wholesale warehouses is based on the DDD Warehouse Master List.

Direct Sample – for products with direct distribution to mail service pharmacies, approximately 100 manufacturers provide their direct sales data to DDD.

Note: For products with both direct and indirect distribution, each data source is combined to determine national estimates. Direct data cannot be isolated from indirect data in any report.

Changes in Sample: N/A

Type of Sampling: Indirect and direct.

Stratification Type N/A

& Criteria:

Selection Method: N/A

Reporting Time: N/A

Projection: N/A

Local Currency: U.S. Dollars

Price Structure:

Price Level used to calculate local currency values:
Pharmacy purchase price, including product level discounts. There are no bottom line discounts or subsequent off-invoice rebates reflected in the price.

Price Level used to calculate US $ values:
N/A

Level of Printed Unit Price:
The data in this report represent the unit and dollar purchases made by mail service pharmacies. The price reflected is the purchase price to the mail service pharmacies, whether purchased from a manufacturer or a wholesaler. Prompt payment case discounts and bottomline discounts are not reflected in the dollar purchase amounts.

All data are in thousands of unit and dollars.

The differences with DDD™ Mail Service Data are:

- IMS National Sales Perspectives: Mail Service Pharmacies dollars reflect pharmacy purchase prices versus DDD’s WAC (Wholesale Acquisition Cost).
- At the national level, units in IMS National Sales Perspective: Mail Service Pharmacies may vary somewhat from DDD because of different data compilation methods. DDD, which is primarily a sub-national database, rounds fractional units, which may lead to minor variability for certain products.

**Price structure/conversion:**

**Relative to Wholesaler:**

Based on annual information received from the HDMA ¹, we estimate that the wholesaler's mark-up is approximately 5%. This indicates that wholesaler’s portion of IMS National Sales Perspectives ™ would be approximately 95%. IMS National Sales Perspectives ™ relative to the wholesaler dollars would be 105%.

<table>
<thead>
<tr>
<th></th>
<th>Wholesaler (PP=100)</th>
<th>Pharmacy (PP=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesaler (PP=100)</td>
<td>100</td>
<td>105</td>
</tr>
<tr>
<td>Pharmacy (PP=100)</td>
<td>95</td>
<td>100</td>
</tr>
</tbody>
</table>

**Relative to Manufacturer:**

Based on both annual information received from the HDMA ¹ and IMS National Sales Perspectives ™ channels’ portion direct sales, the ex-manufacturer adjustment is updated annually and is currently 0.96. This indicates that the manufacturer’s portion of IMS National Sales Perspective ™ would be approximately 96%. IMS National Sales Perspective ™ relative to the manufacturer dollars would be 104%.

<table>
<thead>
<tr>
<th></th>
<th>Manufacturer (PP=100)</th>
<th>Pharmacy (PP=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer (PP=100)</td>
<td>100</td>
<td>104</td>
</tr>
<tr>
<td>Pharmacy (PP=100)</td>
<td>96</td>
<td>100</td>
</tr>
</tbody>
</table>

¹ 2004 HDMA Industry Profile & Healthcare Factbook. HDMA is the Healthcare Distribution Management Association.
### Pharmaceutical Markets Expressed In Percentage Terms (1):

<table>
<thead>
<tr>
<th></th>
<th>RETAIL</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Independ Chain Mass Mer</td>
<td>Foodstore W/Pharm</td>
<td>Mail Service</td>
<td>Non-Fed Facility</td>
<td>Fed Facility</td>
<td>Clinics</td>
<td>HMOs</td>
<td>LTC</td>
<td>Home Health Care</td>
<td>Other</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Rx Market</td>
<td>49%</td>
<td>9%</td>
<td>14%</td>
<td>10%</td>
<td>1.4%</td>
<td>10%</td>
<td>0.6%</td>
<td>4.7%</td>
<td>1%</td>
<td>0.3%</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All numbers are rounded.

Market segment covered by IMS National Sales Perspective™ Mail Service Pharmacies, channel in this book = **14%**

Market segment covered by IMS National Sales Perspective™ Retail – all channels = **72%**

Market segment covered by IMS National Sales Perspective™ – Non-Retail all channels = **28%**

(1) Source: IMS National Sales Perspective™, Rx sales

**Panel Design:**

The data in this report represents the unit and dollar purchases made by mail service pharmacies. The price reflected is the purchase price to the mail service pharmacies, whether purchased from a manufacturer or a wholesaler. Prompt payment cash discounts and bottomline discounts are not reflected in the dollar purchase amounts.

All data are in thousands of units and dollars.
Exhibit 8

Provider Perspective: IMS Audit Information
IM Health, 2006
## Provider Perspective

### What Provider Perspective Is Designed to Do

Provider Perspective (PROV) gives you comprehensive, projected information about sales of pharmaceuticals to healthcare facilities. It is designed to measure prescription, over-the-counter, and generic products in these channels: federal facilities, non-federal hospitals (formerly USH), long-term care facilities, clinics, and HMOs.

With the exception of non-federal hospitals, data for the Provider Perspective channels is available starting with January 1992 data.

### Suggested Uses for Provider Perspective

This audit allows you to analyze market data at the product package level for your products and those of your competitors. Use Provider Perspective when you need to study:

- Market data, such as dollar or unit volume, pricing, market share, and percentage change
- Long-term market trends
- New product introductions, including distribution and the impact upon established products
- Seasonality
- New packaging and new form presentations
- Delivery methods for injectable pharmaceuticals

### Data Elements

The data elements are listed below in alphabetical order within their respective categories. Each Dataview name (in bold typeface) is followed by the IMSPACT name (in parentheses). Then a description of the element is given. Refer to the Dataview Help for more detailed information and special considerations for selecting the elements in database and report queries.

#### Classification

**Anatomical Therapy Class 1 - 4 (ATC1, ATC2, ATC3, ATC4).** The Anatomical Therapeutic Classification (ATC) of products is the international equivalent of the Uniform System of Classification (USC) scheme. (However, ATCs and USCs are mostly not interchangeable.) ATC categories often relate to human body organs or systems. Use ATCs to duplicate your European divisions’ views of the U.S. markets, to combine products into markets where USCs are split, or to locate new products in areas of interest. The lowest level (ATC4) represents the finest level of product classification. Each higher level includes the level beneath it.

**Uniform System of Classification 2 - 5 (USC2, USC3, USC4, USC5).** This system of classification was developed by IMS to categorize all pharmaceutical products. In this system, USC5 (the lowest level) represents the finest level of product classification. Each higher level (USC4, USC3, and USC2) includes the level beneath it. All USC numbers have five places, as follows:
<table>
<thead>
<tr>
<th>Class</th>
<th># Digits</th>
<th># Zeroes</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>USC2</td>
<td>2 digits</td>
<td>3 zeroes</td>
<td>15000</td>
</tr>
<tr>
<td>USC3</td>
<td>3 digits</td>
<td>2 zeroes</td>
<td>15100</td>
</tr>
<tr>
<td>USC4</td>
<td>4 digits</td>
<td>1 zero</td>
<td>15130</td>
</tr>
<tr>
<td>USC5</td>
<td>5 digits</td>
<td>No zeroes</td>
<td>15131</td>
</tr>
</tbody>
</table>

You can review lists of USC codes using the Dataview Market Definition function.

**Corporation/Manufacturer**

*Corporation* (CRP). A corporation has divisions or subsidiaries that manufacture pharmaceutical products. Selecting the corporation will total sales from all subsidiaries.

*Manufacturer/Company* (MNF or MFR). This is the pharmaceutical company that manufactures or promotes a product. Choosing a manufacturer results in sales for each selected company.

**Molecule/Chemical**

*Chemical Family* (FAM). Chemical families are defined in the IMS publication, *Index of Drug Chemicals*. You can select a chemical family by either numeric code or family name. It is recommended that you select Molecule in your database contents if you intend to use Chemical Family.

*Chemical Salt* (SALT). Use Chemical Salt to qualify a molecule. You can select Chemical Salt either by numeric code or by salt name. It is recommended that you avoid adding Chemical Salt to your market definition, because this will create a very large database. To examine chemical salts in kilograms, you must select Molecule and Chemical Salt in your database contents.

*Chemical Sub-Family* (SUBFAM). Chemical sub-families are defined in the IMS publication, *Index of Drug Chemicals*. You can select a chemical sub-family either by numeric code or by sub-family name. It is recommended that you select Molecule in your database contents if you intend to use Chemical Sub-Family.

*Molecule* (MOL). The molecule is the lowest level of the chemical family and sub-family classification. You can use this data element to examine products that contain a particular chemical entity. Molecules are defined in the IMS publication, *Index of Drug Chemicals*. You can select Molecule either by numeric code or molecule name. See the Dataview Help for guidelines on using this data element.
**Molecule Composition (COMP).** Use this element when you want to restrict chemical or product selections to one or more chemical components. Select *Plain* to restrict selections to single-entity products. Select *Combination* to restrict selections to products containing a specified molecule and one or more other molecules. You can use this element as a qualifier for Molecule, Chemical Family, Chemical Sub-Family, USC, Product, and so forth.

**Others**

**Channel/Source (CHAN).** Provider Perspective consists of five channels: federal facilities, non-federal hospitals (formerly USH), long-term care facilities, clinics, and HMOs. You can select and display Provider Perspective data by channel or in a combined report with Retail Perspective data. Access to channels other than non-federal hospitals is by separate subscription only. Data for channels other than non-federal hospitals is available beginning with January 1992.

**Product**

**Ethical/Proprietary Indicator (EPI).** This indicator enables you to limit selected data to only ethical or proprietary brands. Ethical products are marketed to healthcare professionals and often require a prescription. Proprietary products are marketed primarily to consumers and do not require a prescription.

**Injectable Delivery System 2, 3 (DELSYS2, DELSYS3).** Delivery system categories enable you to group injectable products. Note the differences between Delivery System 2 and Delivery System 3.

- Delivery System 2 contains 11 major categories for injectable products. These categories are based on the method of delivery, such as minibags and syringes. Each category has a corresponding two-digit numeric code.

- Delivery System 3 contains 22 subcategories of injectable products that fall within Delivery System 2 major categories. For example, Frozen Minibags and Other Minibags are subcategories of the major category, Minibags. Each category has a corresponding three-digit numeric code.

**Package (PCK).** Packaging refers to the particular form, strength, and size of a product manufactured by a given company and purchased by stores for resale. The meaning of the three-digit package code varies from product to product. For example, a package code of 001 for Product A may indicate a bottle of 500 200-mg tablets, while the package code for Product B may indicate a bottle of 1,000 250-mg capsules.

**Package Month (PCK-MTH).** This is the data month in which a given product package first appeared in the audit. Package month recognition depends on the sales volume tracked by the audit, not upon promotional activity.
Package Size (PCK-SIZ). Package size refers to the number of individual units contained in the selling package of a particular product type. The meaning of "units" varies, depending on the form of the product.

- Tablets and capsules are shown as a single-package unit. For example, a bottle containing 500 capsules has a package size of 1. (The actual number of capsules in the bottle is measured by package volume, rather than package size.)

- Injectable products usually have package sizes greater than one. For example, a 10-pack of injectable vials has a package size of 10, and a dozen bottles of cough syrup has a package size of 12.

Product (PRD). This element includes the drugs or vitamins manufactured and sold by pharmaceutical companies. You can select a product by either a numeric code or the product name.

Product Age (PRD-AGE). Product age is the number of years the product has been on the market, based on its initial appearance in the sales audits.

Product Form 1 - 3 (FRM1, FRM2, FRM3). Product Form refers to the physical dosage form of a drug, such as oral or injectable. This system consists of three levels, with each successive level containing more detail about the product form. For example, Product Form 1 = O contains all orals, Product Form 2 = OL contains all oral liquids, and Product Form 3 = OLS contains all oral liquids in syrup form. You can review a list of form codes using the Dataview Market Definition function. To include different levels of product form in your database, select each level for which you want to see totals.

Product Strength (STR). Most products are available in different potencies or strengths. For example, a product may be offered in both a 250-mg tablet and a 500-mg capsule.

Product Year (PRD-YEAR). This is the year the product was first introduced into the market.

RX Status (RXSTATUS). Use this element if you want to include prescription status in your database or report. RX Status is most meaningful when used to limit Product or a USC to data having a particular prescription status. RX Status can be either Legend (prescription required) or Non-Legend (no prescription required).

Three-Letter Form Code 1 - 3 (TLC1, TLC2, TLC3). This is the application form for classifying a product. Product form encompasses two classification systems—Product Form and Three-Letter Form Code. Both systems consist of three levels, with each successive level containing more detail about the product form. For example, TLC1=D contains all systemic oral liquids, TLC2=DC contains oral drops, and TLC3=DCB contains long-acting oral drops. In general, Three-Letter Form Codes provide a finer breakdown of Product Form. You can review a list of Three-Letter Codes using the Dataview Market Definition function.
Measures

The Provider Perspective measures are listed below in alphabetical order. Refer to the Dataview Help for special considerations in using these measures.

**Provider Diagnosis Value** (DOL/PROV/DV). For each product/form/strength combination, this measure apportions the Provider Perspective non-federal hospital dollars by diagnosis based on the percentage of that product's NDTI drug uses each diagnosis represents. This measure is based on NDTI drug uses where the visit location was a hospital. This measure is available only in the Report Definition function and only if you subscribe to NDTI.

**Provider Diagnosis Value - New** (DOL/PROV/DVN). For each product/form/strength combination, this measure apportions the Provider Perspective non-federal hospital dollars by diagnosis based on the percentage of that product's "total consumption" each diagnosis represents. The total consumption is calculated by multiplying the signa by the length of therapy. This measure is available only in the Report Definition function and only if you subscribe to NDTI.

**Provider Dollars** (DOL/PROV). This measure reports the amount of money non-federal hospitals, federal facilities, long-term care facilities, clinics, and HMOs spent on a product acquired from manufacturers and drug wholesalers.

**Provider Eaches** (EA/PROV). This measure represents the number of single items (such as vials and syringes) contained in a unit or shipping package and purchased by non-federal hospitals, federal facilities, long-term care facilities, clinics, and HMOs in a specific time period. An each may be the same as a unit if the unit does not subdivide into packages. Eaches are most meaningful at the package level, since packages and their subunits may contain different quantities of strengths and volumes.

**Provider Eaches Average Price** (DOL/PROV/EAAP). The measure is calculated by dividing purchase dollars by eaches. This measure is meaningful for injectables, powders, ointments, inhalants, and any other form shipped in packages containing single items that can be broken apart. The average each price prints to three decimal places. For example, 3.277 means an average each price of $3.277.

**Provider Extended Units** (EU/PROV). Extended units is the number of tablets, capsules, milliliters, or grams purchased. This number is calculated by multiplying the number of units by the volume and size of each package reported. Extended units are often meaningless above the form/strength level, because a product may have different forms and strengths and therefore a different type of unit. Eaches and units are most meaningful at the package level.

**Provider Extended Units Average Price** (DOL/PROV/EUAP). This is the average purchase price of a tablet, capsule, milliliter, or other extended unit in the specified time period. It is meaningful only at the package level.
Provider Historical Price (DOL/PROV/HP). This is the average price of a particular package within a specified time period. It is calculated by dividing dollars by units. Historical price is printed to two decimal places. For example, 14.48 means a package price of $14.48. Historical price is most meaningful at the package level.

Provider Kilograms (KG/PROV). This measure reports the chemical weight of quantities purchased. You must have Molecule, Chemical Family, or Chemical Sub-Family in the database contents to obtain kilogram weight. Weights are reported in metric measures, using the following weight symbols:

- A - Thousand Tons
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- G - Gram
- M - Milligram
- X - Microgram
- Z - 1,018 Units
- Y - 1,015 Units
- U - 1,012 Units
- V - 109 Units
- S - 106 Units
- E - 1,000 Units

Examples: 4T3 = 4.3 metric tons or 4 metric tons + 300 kilograms
24K9 = 24.9 kilograms or 24 kilograms + 900 grams

Provider Units (UN/PROV). This measure represents the number of individual shipping packages purchased by non-federal hospitals, federal facilities, long-term care facilities, clinics, and HMOs in a specific time period. Units are most meaningful at the package level, since packages and their subunits contain different quantities of extended units.

Special Considerations

How Provider Perspective Relates to Factory Sales Figures

There are several reasons why analysts may encounter difficulty in attempting to match IMS estimates against factory sales:

- In many cases, it is difficult for companies to ascertain what portion of factory sales are made to the specific channels covered in Provider Perspective.
- Timing of transactions is rarely comparable. Factory sales may be recorded in December, while hospital purchase of the same items may not occur until February.
- Translation of factory sales dollars to hospital acquisition dollar levels is imprecise.
Exhibit 9

DDD™ Annual Class-of-Trade Analysis 2003
IM Health
DDD™ ANNUAL CLASS-OF-TRADE ANALYSIS 2003
The 2003 DDD Annual Class-of-Trade Analysis examines the 10 channels of business across the retail and non-retail pharmaceutical market. It provides statistics relative to market share, growth and overall trends for the past seven years. The Analysis also highlights and reports prescription sales as tracked by IMS Retail Method-of-Payment™.

The dollars used in the Class-of-Trade Analysis (unless otherwise stated) are based on *wholesale acquisition cost (WAC)* – those set by each pharmaceutical manufacturer. These prices do not reflect rebates, discounts or charge backs. Direct sales, as reflected in this analysis, are only for those manufacturers who participate in and provide direct sales data to IMS.

As part of IMS’s Sales Force Effectiveness offerings, DDD is the industry’s premier source of pharmaceutical sales intelligence. Tracking subnational, direct and indirect sales information for pharmaceutical products across all retail and non-retail classes of trade — DDD provides comprehensive insight and accurate assessment of pharmaceutical product sales.
SUMMARY

Driven by consumer demand, the pharmaceutical industry reached annual sales of $233 billion in 2003. Fueled by strong sales across the top 10 therapy classes and the introduction of 21 new molecular entities (up from 17 in 2002), the industry overall grew at 8.8 percent. While this growth rate is slower than previous years, it is most telling considering the multitude of environmental factors influencing the U.S. market.

As in the recent past, the pharmaceutical industry is under the constant scrutiny of the government, media and the general public with politicians, health plans, and employers implementing new strategies to curtail drug spend. Further impacting growth is the reimportation of pharmaceutical products from Canada. Increasingly, brand products are moving to over-the-counter (OTC) status. And, switching from branded to generic products continues (growing by 9.2 percent on a total dispensed prescription basis in 2003).

The U.S. economy, tenuous at best, and marred by an unemployment rate of six percent (the highest it’s been since 1995), also affected overall drug sales. Due to lack of disposable income, consumer polls indicate that patients are opting for non-compliance with recommended therapy treatments, including, cutting doses and ignoring prescription orders altogether.

In 2003, in spite of the many environmental factors and a slowed overall growth rate across the ten classes of trade, several channels faired well. Chain pharmacies and hospitals, the leaders within the retail and non-retail channels respectively, both achieved market share growth in 2003 – this after experiencing a decline in the previous year. Chain stores led all channels with a 28.3 percent market share, followed by hospitals with a 15.3 percent share, and mail service now up to 14.9 percent. This is good news for the chains and hospitals whose market share growth has fluctuated in recent years. As for mail service, while its growth rate has slowed somewhat, down from an average of 26% over the previous four years, its market share increase remains impressive.

Once again, based on DDD dollars, mass merchandisers and healthcare plans had negative growth rates and associated decreases in market share. This holds true for the miscellaneous channel as well, whose market share dropped by a full one percent.
Across all channels, market share for 2003 remained relatively level. Only the mail service and clinic channels experienced notable growth of over one half of one percent. However, even for mail service, the change in market share has fallen off pace from its impressive growth over the past four years. Chain store pharmacies and hospitals, the leaders in the retail and non-retail channels (respectively), each showed an increase in 2003, rebounding from a market share decline in 2002. Market share for all other channels, with the exception of nursing homes, which was up slightly, fell for the year.

### Color Key

<table>
<thead>
<tr>
<th>Channel</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain Pharmacy</td>
<td>28.3%</td>
</tr>
<tr>
<td>Mass Merchandiser with Pharmacy</td>
<td>14.9%</td>
</tr>
<tr>
<td>Mail Service</td>
<td>15.3%</td>
</tr>
<tr>
<td>Independent Pharmacy</td>
<td>15.3%</td>
</tr>
<tr>
<td>Foodstore with Pharmacy</td>
<td>7.0%</td>
</tr>
<tr>
<td>Hospital</td>
<td>9.3%</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>4.5%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3.7%</td>
</tr>
<tr>
<td>Clinic</td>
<td>0.8%</td>
</tr>
<tr>
<td>Healthcare Plan</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

### Chart Description

- **Chain Pharmacy**: 28.3%
- **Mail Service**: 14.9%
- **Independent Pharmacy**: 15.3%
- **Foodstore with Pharmacy**: 7.0%
- **Hospital**: 9.3%
- **Nursing Home**: 4.5%
- **Miscellaneous**: 3.7%
- **Clinic**: 0.8%
- **Healthcare Plan**: 2.8%
DDD MARKET SHARE TRENDS 1997-2003

Market share trends for 2003 were disappointing for the majority of distribution channels. Consistent with previously reported trends, five distribution channels (healthcare plans, miscellaneous, independent pharmacies, foodstores with pharmacies and mass merchandisers) experienced declining market share. Hospitals, nursing homes and chain pharmacies showed modest growth. Once again this year, mail service and clinics fared the best achieving the greatest market share gains.
Indicative of the industry overall, growth rates in general slowed across all channels with several channels showing negative results. For example, since 1999, mail service has experienced an average growth rate of 26 percent, significantly higher than 2003 where the growth rate was just over 14 percent. Chain pharmacies, hospitals and nursing homes all showed double digit increases in DDD dollars. Mass merchandisers, healthcare plans and the miscellaneous channels realized negative growth.

<table>
<thead>
<tr>
<th>CLASS OF TRADE</th>
<th>2003 (000)</th>
<th>2002 (000)</th>
<th>Growth Rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain Pharmacy</td>
<td>$65,966,763</td>
<td>$59,928,028</td>
<td>10.1%</td>
</tr>
<tr>
<td>Independent Pharmacy</td>
<td>$31,282,187</td>
<td>$29,193,817</td>
<td>7.1%</td>
</tr>
<tr>
<td>Mail Service</td>
<td>$34,726,306</td>
<td>$30,412,912</td>
<td>14.2%</td>
</tr>
<tr>
<td>Mass Merchandiser with Pharmacy</td>
<td>$6,557,910</td>
<td>$7,248,063</td>
<td>-9.5%</td>
</tr>
<tr>
<td>Foodstore with Pharmacy</td>
<td>$16,336,659</td>
<td>$15,429,904</td>
<td>5.9%</td>
</tr>
<tr>
<td><strong>TOTAL Retail</strong></td>
<td>$154,869,825</td>
<td>$142,212,724</td>
<td>8.9%</td>
</tr>
<tr>
<td>Hospital</td>
<td>$35,599,732</td>
<td>$32,220,315</td>
<td>10.5%</td>
</tr>
<tr>
<td>Clinic</td>
<td>$21,555,751</td>
<td>$18,629,455</td>
<td>15.7%</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>$10,367,451</td>
<td>$9,171,616</td>
<td>13.0%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$8,713,417</td>
<td>$9,983,178</td>
<td>-12.7%</td>
</tr>
<tr>
<td>Healthcare Plan</td>
<td>$1,914,586</td>
<td>$1,929,052</td>
<td>-0.7%</td>
</tr>
<tr>
<td><strong>TOTAL Non-Retail</strong></td>
<td>$78,150,937</td>
<td>$71,933,616</td>
<td>8.6%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$233,020,762</td>
<td>$214,146,340</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

* Growth rate is underestimated due to limited data access.
All five of the retail channels, except for mass merchandisers, realized gains in dollar trends. Chain pharmacies led the pack followed by the mail service channel. Sales for independent pharmacies and foodstores with pharmacies increased consistent with previous years. Total retail sales increased by $12 billion over 2002 to nearly $155 billion in 2003.
Hospitals, clinics and nursing homes had increases in DDD dollars, but at a more modest rate than the leading retail channels. Healthcare plans continued to decline, and the miscellaneous channel, which in recent years had shown increases, also experienced a decrease in dollars. For 2003, the non-retail market, which has historically shown variability in dollar trends, achieved over $78 billion in sales, up from $71 billion in 2002.
CLASS-OF-TRADE DOLLAR GROWTH

Dollar growth by outlet varied significantly for each of the classes of trade with three channels showing negative growth — mass merchandisers, healthcare plans and the miscellaneous channels. Hospitals, clinics, nursing homes, and chain pharmacies all showed steady growth. Foodstores with pharmacies, mail service and independents realized a decline.

<table>
<thead>
<tr>
<th>Class</th>
<th>Growth in $ Millions 2003 vs. 2002</th>
<th>Dollar Increase Per Outlet ($ actual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain Pharmacy</td>
<td>$6,039</td>
<td>$304,692</td>
</tr>
<tr>
<td>Hospital</td>
<td>$3,380</td>
<td>$338,271</td>
</tr>
<tr>
<td>Clinic</td>
<td>$2,927</td>
<td>$46,482</td>
</tr>
<tr>
<td>Independent Pharmacy</td>
<td>$2,088</td>
<td>$116,563</td>
</tr>
<tr>
<td>Mail Service</td>
<td>$4,313</td>
<td>$11,784,153</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>-$1,270</td>
<td>-$129,923</td>
</tr>
<tr>
<td>Mass Merchandiser with Pharmacy</td>
<td>-$690</td>
<td>-$141,626</td>
</tr>
<tr>
<td>Foodstore with Pharmacy</td>
<td>$907</td>
<td>$90,882</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>$1,195</td>
<td>$221,419</td>
</tr>
<tr>
<td>Healthcare Plan</td>
<td>-$14</td>
<td>-$11,966</td>
</tr>
</tbody>
</table>
RETAIL AND NON-RETAIL OUTLET GROWTH

Outlet counts for the retail market were down slightly from 2002, while the non-retail market realized a gain of over 3,000 new outlets. Half of the channels had double digit growth and included chains, mail service, hospitals, clinics and nursing homes. Once again this year, clinics, led the non-retail market with an outlet growth of 15.7 percent (up from 14.9% in 2002). Mail service, despite a slight decrease in number of outlets, led the retail market with 14.2 percent growth.

<table>
<thead>
<tr>
<th>Retail Class</th>
<th>% Dollar Growth 2003 vs. 2002</th>
<th>2003 No. of Outlets</th>
<th>Average $/Outlet (Millions)</th>
<th>2002 No. of Outlets</th>
<th>Average $/Outlet (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain Pharmacy</td>
<td>10.1%</td>
<td>19,824</td>
<td>$65,967</td>
<td>19,291</td>
<td>$59,928</td>
</tr>
<tr>
<td>Independent Pharmacy</td>
<td>7.1%</td>
<td>17,913</td>
<td>31,282</td>
<td>18,435</td>
<td>29,194</td>
</tr>
<tr>
<td>Mail Service</td>
<td>14.2%</td>
<td>366</td>
<td>34,726</td>
<td>372</td>
<td>30,413</td>
</tr>
<tr>
<td>Mass Merchandiser</td>
<td>-9.5%</td>
<td>4,872</td>
<td>6,558</td>
<td>5,528</td>
<td>7,248</td>
</tr>
<tr>
<td>Foodstore</td>
<td>5.9%</td>
<td>9,918</td>
<td>16,337</td>
<td>9,537</td>
<td>15,430</td>
</tr>
<tr>
<td>Total</td>
<td>8.9%</td>
<td>52,893</td>
<td>154,865</td>
<td>53,163</td>
<td>142,213</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Retail Class</th>
<th>% Dollar Growth 2003 vs. 2002</th>
<th>2003 No. of Outlets</th>
<th>Average $/Outlet (Millions)</th>
<th>2002 No. of Outlets</th>
<th>Average $/Outlet (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>10.5%</td>
<td>9,992</td>
<td>$35,600</td>
<td>9,522</td>
<td>$32,220</td>
</tr>
<tr>
<td>Clinic</td>
<td>15.7%</td>
<td>62,364</td>
<td>21,556</td>
<td>59,304</td>
<td>18,629</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>13.0%</td>
<td>5,397</td>
<td>10,367</td>
<td>5,390</td>
<td>9,172</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>-12.7%</td>
<td>9,775</td>
<td>8,713</td>
<td>10,240</td>
<td>9,983</td>
</tr>
<tr>
<td>Healthcare Plan</td>
<td>-0.7%</td>
<td>1,170</td>
<td>1,915</td>
<td>1,130</td>
<td>1,929</td>
</tr>
<tr>
<td>Total</td>
<td>8.6%</td>
<td>88,698</td>
<td>78,151</td>
<td>85,586</td>
<td>71,933</td>
</tr>
</tbody>
</table>
DDD RETAIL OUTLET COUNTS 1997-2003

For the second year in a row, the retail market, which has historically realized slow but steady outlet growth, lost outlets. The total outlet count was down to 52,893 – a decrease of 270 outlets. Those channels having the greatest impact to the decline in outlets were independents and mass merchandisers. Chain pharmacies added 533 outlets and foodstores with pharmacies gained 381 outlets.

*Note: DDD outlet counts reflect only “active” outlets. Active outlets are those that purchased pharmaceutical products during the last quarter of 2003.*
Accounting for over 60 percent of all outlets, the non-retail market saw an increase of over 3,000 outlets in 2003. In spite of decreases or minimal changes for the majority of non-retail outlets, since 1998, the overall count for this market has steadily increased. This continued growth is primarily due to clinics, whose outlet counts have increased by nearly 10,000 over the past five years.

* Note: DDD outlet counts reflect only “active” outlets. Active outlets are those that purchased pharmaceutical products during the last quarter of 2003.
PAYMENT OF PRESCRIPTIONS BY MANAGED CARE

Similar to last year, overall retail prescription volume continued to slowly expand; however, for the first time in well over a decade, third party paid prescriptions actually decreased (from 74.6% in 2002 to 73.6% in 2003). Conversely, Medicaid prescriptions, which have shown consistent small growth since 1999, increased by over one percent, now up to 12.7 percent. Cash prescriptions continue to taper off, now down to 13.7 percent. However, the rate of decline for cash prescriptions is significantly off pace from previous years.

These shifts in volume may be linked directly to health plans and employers that are shifting costs to patients to help decrease their drug spend. Additionally, the FDA has moved several costly drugs to over-the-counter (OTC) status, deferring an even greater share of drug costs back to consumers. Patients may also be taking advantage of lower prices available through retail and Internet pharmacies in Canada. Finally, volume shifts for 2003 may also be indicative of a troubled U.S. economy, where the U.S. Department of Labor, Bureau of Labor Statistics, charted the annual unemployment rate at six percent, the highest it has been since 1995. In addition, for the last half of the year, the Bureau reported the percentage of those who had exceeded the 26-week unemployment benefits grew by .4 percent. This may also explain, in part, the increase in the government’s Medicaid volume for the year.

Source: IMS Retail Method-of-Payment™
DEFINITIONS

Non-Retail

CLINIC  A physician or group of physicians located at the same address (including family planning, x-ray, dialysis, oncology, emergi-centers and alcohol/drug clinics).

HEALTHCARE PLAN  Includes staff-model health maintenance organizations (hospitals, pharmacies, clinics and warehouses). Also includes worker’s compensation and union shop clinics/pharmacies.

HOSPITAL  Includes accounts at the address of the hospital, such as pharmacies, dispensaries, departments, physicians, outpatient clinics, VA, military and U.S. public health.

MISCELLANEOUS  Includes city/county/state prisons, jails, fire and police departments, veterinarians/animal hospitals, colleges/universities without a hospital, industrial medical departments, pharmaceutical manufacturers and drug warehouses not reporting sell-out to DDD.

NURSING HOME  A residential care facility not located at a hospital. Includes nursing homes, rest homes and convalescent centers. Nursing home providers, visiting nurses, and home healthcare providers are also included in this category.

Retail

CHAIN PHARMACY  A store that fills prescriptions and is a part of a group of four or more stores.

FOODSTORE WITH PHARMACY  Includes food, convenience, grocery and supermarket stores with pharmacies.

INDEPENDENT PHARMACY  A store that fills prescriptions but is not part of a chain. May be a 1-3 store combination.

MAIL SERVICE  A facility that offers a full or specialized product line, delivering prescription and non-prescription products either directly to the patient or, pursuant to a prescription, to a prescriber on behalf of the patient.

MASS MERCHANDISER WITH PHARMACY  Includes any mass merchandise/discount store with a pharmacy.
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Exhibit 10

Protecting Rural Beneficiaries with a Medicare Prescription Drug Benefit
National Rural Health Association, 2003
Protecting Rural Beneficiaries with a Medicare Prescription Drug Benefit
Few would argue against providing Medicare beneficiaries with a prescription drug benefit. It is, quite simply, something they deserve. Indeed, given the increasing cost of prescription drugs, the increasing numbers of elderly, and the increasing role of pharmaceutical care in maintaining health, a prescription drug benefit is an absolute necessity. It is, however, not enough.

Critical as a drug benefit is, it is only part of the package. Insuring drugs without also ensuring accessible, high-quality, and affordable pharmaceutical care (the whole package) will not protect the health and well-being of our citizens. In fact, it could harm them. Therefore, any Medicare prescription drug benefit should include provisions that protect the access of all beneficiaries — rural and urban — to local pharmaceutical care.

In keeping with its mission to improve the health of rural Americans through appropriate and equitable health care services, the National Rural Health Association convened a meeting of experts in rural pharmacy in January 2003 to discuss the rural implications of a Medicare prescription drug benefit and offer suggestions on how best to design a benefit so as to protect rural beneficiaries — to ensure that they not just get the pharmaceuticals, but that they have local access to pharmaceutical care. This report synthesizes the findings and recommendations of those experts. Their consensus: Unless a benefit is designed with rural beneficiaries in mind, great damage could be done — damage that would be irreversible.

Indeed, such damage has happened in the past. In 1983, Medicare moved to an inpatient prospective payment system. By 1991, 193 rural hospitals had closed their doors, unable to survive under a pricing system based largely on an urban environment.1 By 1998, 438 rural hospitals had closed, despite years of adjusting the payment formulas to “mitigate” the damage.2

With that phenomenal increase in pharmaceutical usage comes a rise in the need for pharmaceutical care. To illustrate that point, consider that studies show when a person is on nine or more prescription drugs, the likelihood of an adverse drug reaction is 100 percent. Just as the importance of prescription drugs to health care cannot be overstated, the importance of pharmaceutical care cannot be overstated.


Pharmaceutical Care: The Whole Package

The importance of prescription drugs to health care cannot be overstated. And their importance is only increasing. In 1950, 367 million outpatient prescriptions were written nationwide. Today, the number is close to three billion. Measured in number of prescriptions per person per year, Americans’ usage went from 2.4 to 11. The elderly — who comprise the vast majority of Medicare beneficiaries — average 25-30 prescriptions per person per year.
So, what exactly is pharmaceutical care?

Contrary to popular opinion, pharmaceutical care is far more than the filling and dispensing of prescriptions. Rather, it is a critical component of the overall health care system, as important to patient health as any other component. Pharmaceutical care encompasses

- **Patient advice.** Pharmacists advise patients in any number of ways: how to take a prescription medication, whether the medication will affect or be affected by other medications, what over-the-counter treatments to take for various conditions, and in some cases, when to seek additional medical care.

- **Clinical service.** Depending on the setting, pharmacists provide patients with any number of clinical services, ranging from diagnostic testing to treatment.

- **Case management.** In order to protect patients’ health and see to it that they get the best treatment, pharmacists regularly consult with physicians about patients’ pharmaceutical needs — alerting physicians about potential drug interactions, offering suggestions for alternative treatments, and clarifying prescription orders.

- **Benefits management.** In the same vein, pharmacists also consult with insurance companies on behalf of patients — seeking coverage for a particular drug and correcting wrongly rejected claims.

Although they are often forgotten or taken for granted, pharmacists are a critical part of any health care system. Without them, the system will falter and ultimately fail, endangering patient health and well-being.

**Rural Beneficiaries: Underinsured, Underserved**

The percentages of rural Americans who are older and sicker are greater than those of urban Americans. Average wages in rural America are lower. Lack of health insurance is, depending on the measure, also a relatively greater problem in rural America. A greater proportion of rural Americans also lack access to adequate health care. The story is much the same with respect to Medicare beneficiaries and prescription drugs.

Medicare beneficiaries who live in our nation’s rural areas enjoy prescription drug coverage at a far lower rate than do beneficiaries who live in urban areas. Depending on the measure, the gap between rural and urban beneficiaries with coverage was, in 1999, anywhere from seven percentage points to 17 percentage points.

That fact notwithstanding, data on prescription drug refills by residence show that rural beneficiaries age 51 and older obtain more refills than their urban counterparts. As a result of all these factors, 14 percent of rural beneficiaries in 1999 spent more than 10 percent of their income out of pocket on prescription drugs. Only eight percent of urban beneficiaries did so.

**Rural Pharmacies: Critical Care, Critical Condition**

While pharmacists and the care they provide are a critical component in any health care system, in some rural places underserved by doctors, clinics, and hospitals, they are the entire system. Indeed, studies have found that pharmacists are more widely distributed across rural areas than primary care doctors — often thought to be the mainstay of rural health care. Yet, according to a 1996 study by the American Pharmaceutical Association, 25 percent of the nation’s population lives in rural America but only 12 percent of its pharmacists practice there. This, of course, comes on top of shortages of other health care providers and facilities in rural America — further weakening the health care system serving a quarter of our nation’s citizens.

Reasons for the dramatic rural shortage include the obstacles to setting up shop in areas that can be remote, isolated, and contain higher percentages of low-income clientele. On top of that are the rising workload that pharmacists shoulder and the relative lack of help in rural areas.

According to the National Association of Chain Drug Stores, pharmacists in retail pharmacies alone filled three billion prescriptions last year — up 50 percent from 1990. The association’s data also show that four out of five patients who visit a doctor leave with a prescription.

On the surface, such numbers would seem only to benefit pharmacists. In fact, the rise in prescriptions is a mixed blessing. A study of rural pharmacies in Minnesota, North Dakota, and South Dakota found that more than half of the pharmacists surveyed had difficulty obtaining relief coverage for vacations and time off. Indeed, some rural pharmacists report working 12 or more hours a day (20 percent of it on the phone dealing with third-party payer issues). Obviously, the chance for error increases under such conditions.

Precarious as the state of rural pharmacy is, the situation is getting worse. Pharmacies, particularly small, independent pharmacies — 70 percent of which are located in communities of 50,000 or less — face a long list of pressures:

- **Price takers.** Rural pharmacies are essentially price takers. Pharmacist after pharmacist reports being unable to negotiate prices with pharmaceutical suppliers. Rather, they are typically presented with a contract and pricing scheme and given a few days to take it or leave it. Not surprisingly, such arrangements favor the suppli-
ers and not the pharmacists. As evidence, consider that the average pharmacy makes only a one to two percent profit margin.

- **Small margins/low volumes.** The relatively small sales of a rural pharmacy mean that “making up on volume” for the small profit margin is all but impossible. Indeed, research shows that just to be viable, a pharmacy needs to serve a population of 4,500 people. In many areas, maintaining volume, let alone increasing it, is difficult enough.

- **Mail order.** Mail-order (including Internet) pharmaceutical sales are making the challenge of maintaining volume even harder. According to the Institute for Local Self Reliance, sales at mail-order pharmacies grew 24 percent in 2000 and accounted for some 15 percent of all prescription spending. Because mail-order suppliers deal in vast quantities, they can negotiate lower wholesale prices. And because they maintain no brick and mortar outlets, their overhead is much lower than retail pharmacists. As a result, mail-order suppliers can sell drugs at lower prices. On top of that, some third-party payers steer — some would say coerce — customers into using mail-order rather than local pharmacies. In some instances, pharmacy benefit managers even own the mail-order suppliers they steer customers to — a clear conflict of interest.

- **Age.** The majority of pharmacists in rural areas are approaching retirement age. The decline of pharmacy graduates coupled with the other obstacles to rural pharmacy mean that many will not be replaced.

- **Medicaid.** Some states are seeking to curtail their Medicaid expenditures by reducing even further the low profit margins pharmacies currently make. This is particularly hard on rural pharmacies since they have a higher percentage of Medicaid business than do urban areas (save for some inner city areas).

As a result of these and other pressures, 13 percent of independent pharmacies operated at a loss in 2001; 28 percent earned zero to only two percent profit. Together, these 41 percent of independent pharmacies are vulnerable and in danger of failing. Yet, despite it all, the rural pharmacies still above water continue to provide affordable, accessible, high-quality care. “Rural” does not mean “second-rate.” We should never let it become so.

### Losing Health Care and More

If rural pharmacies fail, they will leave a void in their communities’ health care systems, economies, and civic capacities — a void that once created, will not easily be filled.

With or without a local pharmacy, most people will be able to get the drugs they need via mailorder. What they cannot get from the postman, however, is pharmaceutical care — the whole package. The postman will not be able to advise them, consult with their doctors, and represent their interests to benefits managers. And in rural America, driving to another pharmacy still in business to get that care might mean driving 30, 50, or even 100 miles.

In addition to losing health care, communities will lose local businesses that create, on average, 1.2 to 1.6 jobs for every job at the pharmacy and generate 1.2 to 1.6 dollars for every dollar of salary paid at the pharmacy. Finally, they will lose the civic capacity that a highly educated medical professional concerned with the wellbeing of his or her community adds to that community. In small rural towns and cities such losses can be devastating.

### Ensuring Pharmaceutical Care in a Medicare Drug Benefit Plan

Medicare, because of its sheer size, can either ensure the future of pharmaceutical care as it insures prescription drugs, or it can make it virtually impossible for rural pharmacies to survive. It is, as one pharmacist put it, the light at the end of the tunnel. Whether that light represents hope or a speeding locomotive depends upon the design of the Medicare prescription drug benefit.

What will it take to ensure that a Medicare prescription drug benefit is not a speeding locomotive resulting in catastrophic losses to beneficiaries and their communities? What will it take to see to it that the benefit provides not just the drug, but also the whole package of pharmaceutical care?

A report by the Rural Policy Research Institute’s Rural Health Panel lays out five key elements. Each has important implications for protecting rural beneficiaries’ access to the whole package of pharmaceutical care.

- **Equity.** The Medicare program should maintain equity vis-à-vis benefits and costs among its beneficiaries, who should neither be disadvantaged nor advantaged merely because of where they live.

- **Access.** The Medicare program should ensure that beneficiaries have reasonable access to all medical services, including having essential services within a reasonable distance/time of their residence and being able to afford medically necessary services.
■ **Costs.** The Medicare program should include mechanisms to make the costs affordable, both to beneficiaries and to the taxpayers financing the program.

■ **Quality.** The Medicare program should promote the highest attainable quality of care for all beneficiaries, defined in terms of health outcomes for beneficiaries.

■ **Choices.** The Medicare program should ensure that all beneficiaries have comparable choices available to them — between both health care plans and health care providers.

As the Congress and Administration consider proposals to add a Medicare prescription drug benefit, they need to consider those five key criteria and build in protections for rural beneficiaries. Specifically, Congress and the Administration should consider the following recommendations.

■ Rural areas are different than urban areas. Their unique characteristics present unique challenges in the design and delivery of any prescription drug benefit. Therefore, the plan should
  ■ Grant the Secretary of the U. S. Department of Health and Human Services the authority to recognize special circumstances that affect rural areas.
  ■ Beneficiaries — rural and urban — need access to medications in emergency situations and access to the informational services provided by local pharmacists. Mail-order prescription services cannot provide either of these. Access to pharmaceutical care must be a key consideration. Therefore, a Medicare prescription drug plan should
    ■ Not rely solely on mail-order pharmacy services; it should also allow for walk-in services.
  ■ The unique characteristics of rural America mean that a plan based solely on competition will not work there and will result in rural beneficiaries being underserved. Therefore, a Medicare prescription drug plan should
    ■ Not rely only on a private plan such as Medicare + Choice to be the sole vehicle for a prescription drug benefit. The government should also offer a base (default) plan in which it will assume an acceptable amount of risk so that the basic (default) plan of prescription drug coverage will be affordable to all Medicare beneficiaries with no other plan options.
    ■ Ensure that providers and deliverers of care are separate from those who enroll and educate beneficiaries. The government or a third-party contractor should provide consumers with objective information (including transparent information on pricing) about enrollment options. This is critically important in rural areas given the limited number of options that will likely be available.
    ■ Consider whether independent rural pharmacies or networks of independent rural pharmacies might be able to take on the role of a pharmacy benefit manager for rural communities.
  ■ Rural beneficiaries are more likely to be served by community-based pharmacies that operate on a small volume and profit margin. Any move to cut costs by reducing the dispensing fees for rural pharmacists could be devastating to their economic viability. The potential loss of the local pharmacist would have a negative impact on quality of care for rural Medicare beneficiaries since they would not have access to medication management — a key need for a population that tends to take multiple medications and, therefore, needs to understand the impact of drug interactions. The plan should
    ■ Not seek to cut costs by reducing the dispensing fees for pharmacists.
    ■ Use consistent national pricing regardless of the geography or volume of the purchaser, and make that pricing transparent.
    ■ Develop ways to protect rural pharmacies that serve as a sole or critical point of contact for their community.
    ■ Create an administrative add-on for low-volume rural pharmacies.
    ■ Include “any willing provider” protection so that pharmacists in rural areas, including those serving Native American and Alaskan communities, are not bypassed by pharmacy benefit managers.
  ■ The addition of a Medicare prescription drug benefit will dramatically change the scope of the health care delivery system across the health care system. The increase in utilization will create a greater need for pharmacist services to counsel beneficiaries and evaluate multiple drug interactions. This is particularly important in rural communities not served by a physician and where the pharmacist may be the only health care provider. Therefore, Congress and the Administration should consider a demonstration program to allow pharmacists in rural areas to expand their scope of services to recognize the new challenges of serving beneficiaries. This would require the following changes:
    ■ Pharmacists should be recognized as Medicare providers (with “provider status”) who serve patients’ drug-related needs as a part of the medical team in rural communities.
The payment system should include Certified Pharmacy Technician codes for pharmaceutical care, case management, and appropriate counseling activities.

All participating pharmacies in a Medicare prescription drug benefit should be able to dispense 90-day supplies. That would put them on a level playing field with mail-order services.

Any new benefit should include a provision that places high-risk and high-cost patients (of which there are many in rural areas) in pharmacy case management programs with appropriate compensation.

As Congress and the Administration implement a new Medicare prescription drug benefit, they will need to evaluate and assess the impacts of it. Therefore, they should

Require pharmacy benefit managers and any contractors providing services to report utilization and cost data with sufficient geographic identifiers and demographics to evaluate rural policy and impact issues.

Grant the Administration the authority and funding to conduct research on the impact of the program on rural pharmacy patients.

Given the importance of pharmaceutical care to the health and well-being of Medicare beneficiaries, simply insuring prescription drugs is not enough. A Medicare prescription drug benefit plan must also ensure that the full range of local pharmaceutical care — the whole package — is available, accessible, and affordable to all Medicare beneficiaries, both rural and urban. Anything less would do great harm to countless beneficiaries and the communities in which they live.

On January 15-16, 2003, the National Rural Health Association and the Federal Office of Rural Health Policy convened a Rural Pharmacy Issues meeting. Participants included pharmacists, researchers, and policymakers. The focus of the discussion: ensuring that a Medicare prescription drug benefit recognizes the unique situation of rural pharmaceutical care and its importance to the health and well-being of rural beneficiaries. This report is a synthesis of that discussion.

For more information about the meeting or rural pharmacy issues, please contact:

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Exhibit 11

Rural Pharmacy Preservation Act
Minnesota Pharmacists Association, 2005
ACCESS TO PHARMACISTS in rural Minnesota is nearing a crisis point. Pharmacies and pharmacists not only provide drug therapy and health care guidance regarding medications to patients coming into their pharmacy, they also serve local nursing homes, hospitals and other entities by providing medication reviews for patients, and ordering and delivering medications.

Rural pharmacy is fragile in today’s environment due to increasing costs of doing business and continuous cuts to pharmacy reimbursement in both the public and private sectors. The result is many rural Minnesotans are losing access to medications and the knowledge of a pharmacist. Incorporation of a rural pharmacy planning and transition grant program and rural loan forgiveness provides support to initiatives that preserve access to Pharmacy services for rural Minnesotans and assists rural communities in attracting pharmacists.

- A study of 126 rural communities with only one community pharmacy in Minnesota revealed that the 216,000 patients within these community’s limits, would have to travel, on average, 22 miles to a neighboring community to receive medications. Not having access to a pharmacist or a pharmacy is also an issue for rural primary care clinics, health systems and rural communities.

- Minnesota loses 38 pharmacies per year: 10-12 of those community pharmacies are not replaced. From July 2004 to February 2005, Minnesota lost 22 pharmacies.

MAINTAINING LOCAL ACCESS TO MEDICATIONS AND THE KNOWLEDGE OF A PHARMACIST

- Through the grant program hospitals, clinics, pharmacies and communities can collaborate and explore options to maintain local access to medications and the skills of a pharmacist. This grant program for pharmacy is needed to keep up with and reverse pharmacy closures and loss of pharmacists in rural areas.

- The grant program will be funded by excess licensure fees paid by pharmacists, pharmacies and wholesalers and collected by the Board of Pharmacy. Since the Board’s budget has remained at a fixed rate and the fees brought in from licensures have increased, excess revenues have been swept into the state’s special revenue fund. The excess fees will be dedicated to the grant program, which will be administered by the Minnesota Department of Health. The initiative will help pharmacy sustain pharmacy.

- In addition, rural pharmacist loan forgiveness is another incentive to attract new graduates to the rural areas that are in need of a pharmacist. The current rural loan-forgiveness program, funded by the provider tax and wholesale drug distributor tax incurred by pharmacies, encourages students graduating from the health care professions to practice in rural areas. However, this program currently does not include pharmacists. With the growing pharmacist shortage in rural areas it is necessary to add pharmacists into the program.