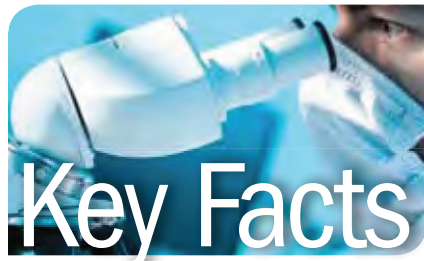


PhARMA 2012 profile

PHARMACEUTICAL
INDUSTRY





Key Facts



Research and Development (R&D)

Time to develop a drug = 10 to 15 years¹

Development Costs

Average cost to develop a drug (including the cost of failures)²

Early 2000s = \$1.2 billion

Late 1990s = \$800 million*

Mid-1980s = \$320 million*

1970s = \$140 million*

R&D Spending

Year	PhRMA members ³
2011	\$49.5 billion (est.)
2010	\$50.7 billion
2009	\$46.4 billion
2008	\$47.4 billion
2007	\$47.9 billion
2006	\$43.0 billion
2005	\$39.9 billion
2004	\$37.0 billion
2000	\$26.0 billion
1990	\$8.4 billion
1980	\$2.0 billion

Estimated Percentage of Sales That Went to R&D in 2011⁴

Domestic R&D as a percentage of domestic sales = 21.1%

Total R&D as a percentage of total sales = 16.7%

Economic Impact of the Biopharmaceutical Sector⁵

Direct jobs = More than 650,000 in 2009 (most recent data)

Total jobs (including indirect and induced jobs) = About 4 million in 2009 (most recent data)

*Note: Data is adjusted to 2000 dollars based on correspondence with J.A. DiMasi.

Approvals

- Medicines approved 2001–2011 = 340⁶
- In the 29 years since the Orphan Drug Act was established, 398 orphan drugs have been approved.⁷
- Only 2 of 10 marketed drugs return revenues that match or exceed R&D costs.⁸

Medicines in Development

2011 = 3,240 compounds⁹

2001 = 2,040 compounds¹⁰

Value of Medicines

- **Cancer:** Since 1980, life expectancy for cancer patients has increased about **3 years**, and 83% of those gains are attributable to new treatments, including medicines.¹¹ Another study found that medicines specifically account for 50% to 60% of increases in survival rates since 1975.¹²
- **Cardiovascular Disease:** According to a 2011 statistics update by the American Heart Association (AHA), death rates for cardiovascular disease fell a dramatic **31%** between 1998 and 2008.¹³
- **HIV/AIDS:** Since the approval of the antiretroviral treatments (ART) in 1995, the U.S. AIDS death rate has dropped by **more than 80%**.¹⁴

Sales

Generic share of market¹⁵

2000 = 49%

2011 = 80%

See inside back cover for endnotes.

endnotes

(continued from inside front cover)

¹J.A. DiMasi, "New Drug Development in U.S. 1963–1999," *Clinical Pharmacology & Therapeutics* 69, no. 5 (2001): 286–296; M. Dickson and J.P. Gagnon, "Key Factors in the Rising Cost of New Drug Discovery and Development," *Nature Reviews Drug Discovery* 3 (May 2004): 417–429; J.A. DiMasi, R.W. Hansen, and H.G. Grabowski, "The Price of Innovation: New Estimates of Drug Development Costs," *Journal of Health Economics* 22 (2003): 151–185.

²J.A. DiMasi and H.G. Grabowski, "The Cost of Biopharmaceutical R&D: Is Biotech Different?" *Managerial and Decision Economics* 28, no. 4–5 (2007): 469–479; J.A. DiMasi, R.W. Hansen, and H.G. Grabowski, "The Price of Innovation: New Estimates of Drug Development Costs," *Journal of Health Economics* 22 (2003): 151–185.

³Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey (Washington, DC: PhRMA, 1981–2012).

⁴Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey (Washington, DC: PhRMA, 2012).

⁵Battelle Technology Partnership Practice, The U.S. Biopharmaceuticals Sector: Economic Contribution of the Nation (Columbus, OH: Battelle Memorial Institute, July 2011).

⁶Pharmaceutical Research and Manufacturers of America, New Drug Approvals, 2001–2010 (Washington DC: PhRMA, 2002–2011); U.S. Food and Drug Administration, "2011 Biological License Application Approvals," 2 March 2012, <http://www.fda.gov/BiologicsBloodVaccines/DevelopmentApprovalProcess/BiologicalApprovalsbyYear/ucm242933.htm> (accessed 10 February 2012); U.S. Food and Drug Administration, New Molecular Entity Approvals for 2011, 31 January 2012, <http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DrugInnovation/ucm285554.htm> (accessed 10 February 2012).

⁷Food and Drug Administration, Orphan Drug Designations and Approvals Database, www.accessdata.fda.gov/scripts/opdlisting/oopd/index.cfm (accessed 13 March 2012).

⁸J.A. Vernon, J.H. Golec, and J.A. DiMasi, "Drug Development Costs When Financial Risk is Measured Using the Fama-French Three-Factor Model," *Health Economics Letters* 19, no. 8 (2010): 1002–1010.

⁹Adis R&D Insight Database, Wolters Kluwer Health (accessed 10 February 2012).

¹⁰Adis R&D Insight Database, Wolters Kluwer Health, customized run, December 2007.

¹¹E. Sun, et al., "The Determinants of Recent Gains in Cancer Survival: An Analysis of the Surveillance, Epidemiology, and End Results (SEER) Database," *Journal of Clinical Oncology* 26, suppl. 15 (2008): Abstract 6616.

¹²F. Lichtenberg, "The Expanding Pharmaceutical Arsenal in the War on Cancer," NBER Working Paper 10328 (National Bureau of Economic Research, February 2004).

¹³V.L. Roger, et al., "Heart Disease and Stroke Statistics 2011 Update: A Report from the American Heart Association," *Circulation*, published online, 15 December 2011.

¹⁴U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, Health, United States, 2010: With Special Feature on Death and Dying, table 35 (Hyattsville, MD: HHS, 2011), <http://www.cdc.gov/nchs/data/hsr/hsr10.pdf#045>; S.L. Murphy, et al., "Deaths: Final Data for 2010," *National Vital Statistics Reports* 60, no. 4 (2012): 43 (table 2), http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_04.pdf (accessed 2 March 2012).

¹⁵IMS Health, analysis for PhRMA, March 2012.

**Horizon Pharma, Inc.***Northbrook, IL***Ikaria, Inc.***Hampton, NJ***Orexigen Therapeutics, Inc.***La Jolla, CA***Shionogi Inc.***Florham Park, NJ***Sucampo Pharmaceuticals, Inc.***Bethesda, MD***Theravance, Inc.***South San Francisco, CA***United Therapeutics Corporation***Silver Spring, MD***Vertex Pharmaceuticals Incorporated***Cambridge, MA***Vifor Pharma***Basking Ridge, NJ***Vivus, Inc.***Mountain View, CA***Xoma Ltd.***Berkeley, CA*

PhRMA Annual Membership Survey

DEFINITION OF TERMS

Research and Development Expenditure Definitions

R&D Expenditures: Expenditures within PhRMA member companies' U.S. and/or foreign research laboratories plus research and development (R&D) funds contracted or granted to commercial laboratories, private practitioners, consultants, educational and nonprofit research institutions, manufacturing and other companies, or other research-performing organizations located inside/outside of the U.S. Includes basic and applied research, as well as developmental activities carried on or supported in the pharmaceutical, biological, chemical, medical, and related sciences, including psychology and psychiatry, if the purpose of such activities is concerned ultimately with the utilization of scientific principles in understanding diseases or in improving health. Includes the total cost incurred for all pharmaceutical R&D activities, including salaries, materials, supplies used, and a fair share of overhead, as well as the cost of developing quality control. However, it does not include the cost of routine quality control activities, capital expenditures, or any costs incurred for drug or medical R&D conducted under a grant or contract for other companies or organizations.

Domestic R&D: Expenditures within the United States by all PhRMA member companies.

- **Externally Researched:** Agreements with other companies/universities/research institutions to develop, license or acquire promising compounds, technologies or capabilities. Includes initial payments and milestones for new and ongoing partnerships, collaborations, alliances and license agreements and acquisitions.

- **Self-originated:** Products for which the company originates the compound.

R&D Abroad: Expenditures outside the United States by U.S.-owned PhRMA member companies and R&D conducted abroad by the U.S. divisions of foreign-owned PhRMA member companies. R&D performed abroad by the foreign divisions of foreign-owned PhRMA member companies is excluded.

Prehuman/Preclinical Testing: From synthesis to first testing in humans.

Phase 1/2/3 Clinical Testing: From first testing in designated phase to first testing in subsequent phase.

Approval Phase: From New Drug Application (NDA)/Biologic License Application (BLA) submission to NDA/BLA decision.

Phase 4 Clinical Testing: Any post-marketing R&D activities performed.

Uncategorized: Represents data for which detailed classifications were unavailable.

Biologics and Biotechnology R&D: R&D expenditures devoted to biologics and biotechnology products made from living material (plant, animal or microorganism). These products may be derived from natural sources or engineered in a laboratory. Excluded are R&D expenditures for biotechnology techniques used to produce non-biotechnology products. Biotechnology-derived therapeutic proteins includes recombinant protein products and monoclonal antibodies.

Sales Definitions

Sales: Product sales calculated as billed, free on board (FOB) plant or warehouse less cash discounts, Medicaid rebates, returns, and allowances. These include all marketing expenses except transportation costs. Also included is the sales value of products bought and

resold without further processing or repackaging, as well as the dollar value of products made from the firm's own materials for other manufacturers' resale. Excluded are all royalty payments, interest, and other income.

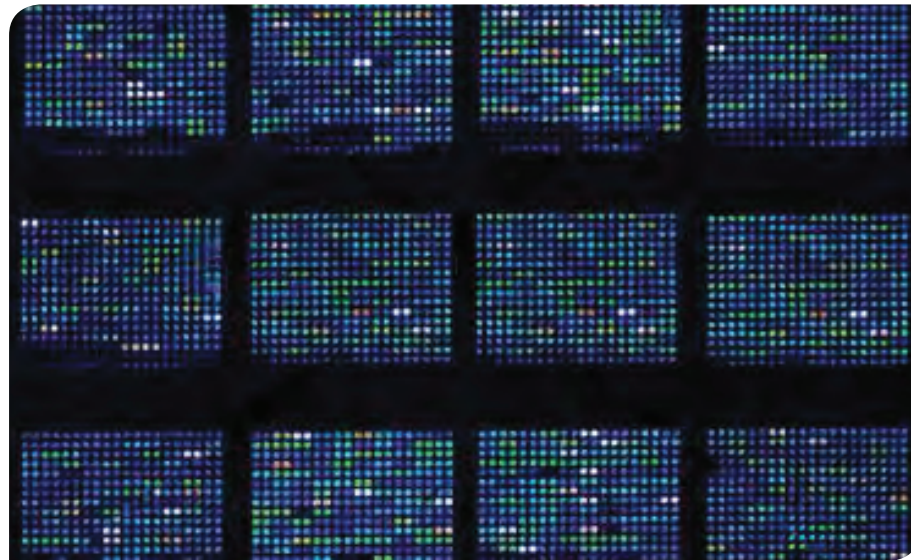
Domestic Sales: Sales generated within the United States by all PhRMA member companies.

- **Private Sector:** Sales through regular marketing channels for end-use other than by government agency administration or distribution.
- **Public Sector:** Sales or shipments made directly to federal, state, or local government agencies, hospitals, and clinics.

Sales Abroad: Sales generated outside the United States by U.S.-owned PhRMA member companies, and sales generated abroad by the U.S. divisions of foreign-owned PhRMA member companies. Sales generated abroad by the foreign divisions of foreign-owned PhRMA member companies are excluded.

- **Exports to Other Customers:** Sales to third parties only, FOB U.S. port. Excludes all intrafirm transactions, such as sales or shipments to subsidiaries or affiliates.
- **Foreign Sales:** Sales consummated in foreign countries.

R&D Employment Definitions



Scientific, Professional, and Technical Staff: Full-time employees, as well as full-time equivalents for part-time employees, whose work requires the application of R&D knowledge, skills, and scientific techniques in the life, physical, engineering, mathematical, or statistical sciences, as well as persons engaged in technical work at a level that requires knowledge in one of the above-mentioned fields. Does not include persons who have formal training in the sciences but who are not actively engaged in R&D.

Supported Scientific, Professional, and Technical Nonstaff: Persons whose work requires the application of R&D knowledge, skills, and scientific techniques in the life, physical, engineering, mathematical, or statistical sciences, as well as persons

engaged in technical work at a level that requires knowledge in one of the above-mentioned fields who are supported through contracts or grants to commercial laboratories, private practitioners, consultants, educational and nonprofit research institutions, manufacturing and other companies, or other research-performing organizations located in the United States. Does not include persons who have formal training in the sciences but who are not actively engaged in R&D.

List of Tables

DETAILED RESULTS FROM THE PhRMA ANNUAL MEMBERSHIP SURVEY

R&D, PhRMA Member Companies

1 Domestic R&D and R&D Abroad: 1975–2011.....	50
2 R&D as a Percentage of Sales: 1975–2011	51
3 Domestic R&D and R&D Abroad: 2010	52
4 Domestic R&D by Source: 2010	53
5 R&D by Function: 2010	53
6 R&D by Geographic Area: 2010	54
7 Biologics and Biotechnology R&D: 2010	55

Sales, PhRMA Member Companies

8 Domestic Sales and Sales Abroad: 1975–2011	56
9 Sales by Geographic Area: 2010	57

R&D Employment, PhRMA Member Companies

10 Domestic R&D Scientific, Professional and Technical Personnel by Function: 2010	58
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TABLE 1: Domestic R&D and R&D Abroad,* PhRMA Member Companies: 1975–2011

(dollar figures in millions)

Year	Domestic R&D	Annual Percentage Change	R&D Abroad*	Annual Percentage Change	Total R&D	Annual Percentage Change
2011**	\$38,529.9	-5.3%	\$10,946.0	9.2%	\$49,475.9	-2.4%
2010	40,688.1	15.1	10,021.7	-9.6	50,709.8	9.2
2009	35,356.0	-0.6	11,085.6	-6.1	46,441.6	-2.0
2008	35,571.1	-2.8	11,812.0	4.6	47,383.1	-1.1
2007	36,608.4	7.8	11,294.8	25.4	47,903.1	11.5
2006	33,967.9	9.7	9,005.6	1.3	42,973.5	7.8
2005	30,969.0	4.8	8,888.9	19.1	39,857.9	7.7
2004	29,555.5	9.2	7,462.6	1.0	37,018.1	7.4
2003	27,064.9	5.5	7,388.4	37.9	34,453.3	11.1
2002	25,655.1	9.2	5,357.2	-13.9	31,012.2	4.2
2001	23,502.0	10.0	6,220.6	33.3	29,722.7	14.4
2000	21,363.7	15.7	4,667.1	10.6	26,030.8	14.7
1999	18,471.1	7.4	4,219.6	9.9	22,690.7	8.2
1998	17,127.9	11.0	3,839.0	9.9	20,966.9	10.8
1997	15,466.0	13.9	3,492.1	6.5	18,958.1	12.4
1996	13,627.1	14.8	3,278.5	-1.6	16,905.6	11.2
1995	11,874.0	7.0	3,333.5	***	15,207.4	***
1994	11,101.6	6.0	2,347.8	3.8	13,449.4	5.6
1993	10,477.1	12.5	2,262.9	5.0	12,740.0	11.1
1992	9,312.1	17.4	2,155.8	21.3	11,467.9	18.2
1991	7,928.6	16.5	1,776.8	9.9	9,705.4	15.3
1990	6,802.9	13.0	1,617.4	23.6	8,420.3	14.9
1989	6,021.4	15.0	1,308.6	0.4	7,330.0	12.1
1988	5,233.9	16.2	1,303.6	30.6	6,537.5	18.8
1987	4,504.1	16.2	998.1	15.4	5,502.2	16.1
1986	3,875.0	14.7	865.1	23.8	4,740.1	16.2
1985	3,378.7	13.3	698.9	17.2	4,077.6	13.9
1984	2,982.4	11.6	596.4	9.2	3,578.8	11.2
1983	2,671.3	17.7	546.3	8.2	3,217.6	16.0
1982	2,268.7	21.3	505.0	7.7	2,773.7	18.6
1981	1,870.4	20.7	469.1	9.7	2,339.5	18.4
1980	1,549.2	16.7	427.5	42.8	1,976.7	21.5
1979	1,327.4	13.8	299.4	25.9	1,626.8	15.9
1978	1,166.1	9.7	237.9	11.6	1,404.0	10.0
1977	1,063.0	8.1	213.1	18.2	1,276.1	9.7
1976	983.4	8.8	180.3	14.1	1,163.7	9.6
1975	903.5	13.9	158.0	7.0	1,061.5	12.8
Average		11.2%		12.3%		11.4%

*R&D Abroad includes expenditures outside the United States by U.S.-owned PhRMA member companies and R&D conducted abroad by the U.S. divisions of foreign-owned PhRMA member companies. R&D performed abroad by the foreign divisions of foreign-owned PhRMA member companies are excluded. Domestic R&D, however, includes R&D expenditures within the United States by all PhRMA member companies.

**Estimated.

***R&D Abroad affected by merger and acquisition activity.

Note: All figures include company-financed R&D only. Total values may be affected by rounding.

SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.

TABLE 2: R&D as a Percentage of Sales, PhRMA Member Companies: 1975–2011

Year	Domestic R&D as a Percentage of Domestic Sales	Total R&D as a Percentage of Total Sales
2011*	21.1%	16.7%
2010	22.0	17.4
2009	19.5	16.8
2008	19.4	16.6
2007	19.8	17.5
2006	19.4	17.1
2005	18.6	16.9
2004	18.4	16.1**
2003	18.3	16.5**
2002	18.4	16.1
2001	18.0	16.7
2000	18.4	16.2
1999	18.2	15.5
1998	21.1	16.8
1997	21.6	17.1
1996	21.0	16.6
1995	20.8	16.7
1994	21.9	17.3
1993	21.6	17.0
1992	19.4	15.5
1991	17.9	14.6
1990	17.7	14.4
1989	18.4	14.8
1988	18.3	14.1
1987	17.4	13.4
1986	16.4	12.9
1985	16.3	12.9
1984	15.7	12.1
1983	15.9	11.8
1982	15.4	10.9
1981	14.8	10.0
1980	13.1	8.9
1979	12.5	8.6
1978	12.2	8.5
1977	12.4	9.0
1976	12.4	8.9
1975	12.7	9.0

*Estimated.

**Revised in 2007 to reflect updated data.

SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.

TABLE 3: Domestic R&D and R&D Abroad,* PhRMA Member Companies: 2010

(dollar figures in millions)

R&D Expenditures for Human-use Pharmaceuticals	Dollars	Share
Domestic	\$40,337.6	79.5%
Abroad*	\$9,681.3	19.1%
Total Human-use R&D	\$50,019.0	98.6%
R&D Expenditures for Veterinary-use Pharmaceuticals		
Domestic	\$350.5	0.7%
Abroad*	\$340.3	0.7%
Total Vet-use R&D	\$690.8	1.4%
TOTAL R&D	\$50,709.8	100.0%

*R&D abroad includes expenditures outside the United States by U.S.-owned PhRMA member companies and R&D conducted abroad by the U.S. divisions of foreign-owned PhRMA member companies. R&D performed abroad by the foreign divisions of foreign-owned PhRMA member companies are excluded. Domestic R&D, however, includes R&D expenditures within the United States by all PhRMA member companies.

Note: All figures include company-financed R&D only. Total values may be affected by rounding.
SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.

TABLE 4: Domestic R&D by Source, PhRMA Member Companies: 2010

(dollar figures in millions)

Source	Dollars	Share
Externally Researched	\$6,819.5	16.8%
Self-originated	28,866.1	70.9
Uncategorized	5,002.4	12.3
TOTAL R&D	\$40,688.1	100.0%

Note: All figures include company-financed R&D only. Total values may be affected by rounding.
SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.

TABLE 5: R&D by Function, PhRMA Member Companies: 2010

(dollar figures in millions)

Function	Dollars	Share
Prehuman/Preclinical	\$12,578.2	24.8%
Phase 1	4,130.3	8.1
Phase 2	6,483.3	12.8
Phase 3	18,598.1	36.7
Approval	3,108.3	6.1
Phase 4	4,839.0	9.5
Uncategorized	972.6	1.9
TOTAL R&D	\$50,709.8	100.0%

Note: All figures include company-financed R&D only. Total values may be affected by rounding.
SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.

TABLE 6: R&D by Geographic Area,* PhRMA Member Companies: 2010

(dollar figures in millions)

Geographic Area*	Dollars	Share
Africa		
Egypt	\$1.7	0.0%
South Africa	34.6	0.1
Other Africa	4.5	0.0
Americas		
United States	\$40,688.1	80.2%
Canada	526.1	1.0
Mexico	71.8	0.1
Brazil	125.3	0.2
Argentina	44.9	0.1
Venezuela	12.1	0.0
Columbia	22.5	0.0
Chile	7.4	0.0
Peru	24.1	0.0
Other Latin America (Other South America, Central America, and all Caribbean nations)	62.4	0.1
Asia-Pacific		
Japan	\$695.8	1.4%
China	142.9	0.3
India	43.9	0.1
Taiwan	26.7	0.1
South Korea	57.7	0.1
Other Asia-Pacific	424.3	0.8
Australia		
Australia and New Zealand	\$205.2	0.4%
Europe		
France	\$308.4	0.6%
Germany	538.9	1.1
Italy	158.7	0.3
Spain	191.2	0.4
United Kingdom	1,922.6	3.8
Other Western European	4,003.6	7.9
Czech Republic	34.3	0.1
Hungary	30.9	0.1
Poland	49.2	0.1
Turkey	38.2	0.1
Russia	60.0	0.1
Central and Eastern Europe (Cyprus, Estonia, Slovenia, Bulgaria, Lithuania, Latvia, Romania, Slovakia, Malta, and other Eastern European countries and the Newly Independent States)	107.3	0.2
Middle East		
Saudi Arabia	\$16.6	0.0%
Middle East (Yemen, United Arab Emirates, Iraq, Iran, Kuwait, Israel, Jordan, Syria, Afghanistan, and Qatar)	26.7	0.1
Uncategorized	\$1.1	0.0%
TOTAL R&D	\$50,709.8	100.0%

*R&D abroad includes expenditures outside the United States by U.S.-owned PhRMA member companies and R&D conducted abroad by the U.S. divisions of foreign-owned PhRMA member companies. R&D performed abroad by the foreign divisions of foreign-owned PhRMA member companies are excluded. Domestic R&D, however, includes R&D expenditures within the United States by all PhRMA member companies.

Note: All figures include company-financed R&D only. Total values may be affected by rounding.
SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.

TABLE 7: Biologics and Biotechnology R&D, PhRMA Member Companies: 2010

(dollar figures in millions)

Type	Dollars	Share
Biotechnology-derived Therapeutic Proteins	\$9,563.6	18.9%
Vaccines	968.4	1.9
Cell or Gene Therapy	268.5	0.5
All Other Biologics	948.0	1.9
Total Biologics/Biotechnology R&D	\$11,748.5	23.2%
Nonbiologics/Biotechnology R&D	\$38,961.3	76.8%
TOTAL R&D	\$50,709.8	100.0%

Note: All figures include company-financed R&D only. Total values may be affected by rounding.
SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.

TABLE 8: Domestic Sales and Sales Abroad,* PhRMA Member Companies: 1975–2011

(dollar figures in millions)

Year	Domestic Sales	Annual Percentage Change	Sales Abroad*	Annual Percentage Change	Total Sales	Annual Percentage Change
2011**	\$182,702.8	-1.1%	\$112,793.4	5.8%	\$295,496.2	1.5%
2010	184,660.3	2.0	106,593.2	12.0	291,253.5	5.4
2009	181,116.8	-1.1	95,162.5	-7.5	276,279.3	-3.4
2008	183,167.2	-1.1	102,842.4	16.6	286,009.6	4.6
2007	185,209.2	4.2	88,213.4	14.8	273,422.6	7.4
2006	177,736.3	7.0	76,870.2	10.0	254,606.4	7.9
2005	166,155.5	3.4	69,881.0	0.1	236,036.5	2.4
2004***	160,751.0	8.6	69,806.9	14.6	230,557.9	10.3
2003***	148,038.6	6.4	60,914.4	13.4	208,953.0	8.4
2002	139,136.4	6.4	53,697.4	12.1	192,833.8	8.0
2001	130,715.9	12.8	47,886.9	5.9	178,602.8	10.9
2000	115,881.8	14.2	45,199.5	1.6	161,081.3	10.4
1999	101,461.8	24.8	44,496.6	2.7	145,958.4	17.1
1998	81,289.2	13.3	43,320.1	10.8	124,609.4	12.4
1997	71,761.9	10.8	39,086.2	6.1	110,848.1	9.1
1996	64,741.4	13.3	36,838.7	8.7	101,580.1	11.6
1995	57,145.5	12.6	33,893.5	****	91,039.0	****
1994	50,740.4	4.4	26,870.7	1.5	77,611.1	3.4
1993	48,590.9	1.0	26,467.3	2.8	75,058.2	1.7
1992	48,095.5	8.6	25,744.2	15.8	73,839.7	11.0
1991	44,304.5	15.1	22,231.1	12.1	66,535.6	14.1
1990	38,486.7	17.7	19,838.3	18.0	58,325.0	17.8
1989	32,706.6	14.4	16,817.9	-4.7	49,524.5	7.1
1988	28,582.6	10.4	17,649.3	17.1	46,231.9	12.9
1987	25,879.1	9.4	15,068.4	15.6	40,947.5	11.6
1986	23,658.8	14.1	13,030.5	19.9	36,689.3	16.1
1985	20,742.5	9.0	10,872.3	4.0	31,614.8	7.3
1984	19,026.1	13.2	10,450.9	0.4	29,477.0	8.3
1983	16,805.0	14.0	10,411.2	-2.4	27,216.2	7.1
1982	14,743.9	16.4	10,667.4	0.1	25,411.3	9.0
1981	12,665.0	7.4	10,658.3	1.4	23,323.3	4.6
1980	11,788.6	10.7	10,515.4	26.9	22,304.0	17.8
1979	10,651.3	11.2	8,287.8	21.0	18,939.1	15.3
1978	9,580.5	12.0	6,850.4	22.2	16,430.9	16.1
1977	8,550.4	7.5	5,605.0	10.2	14,155.4	8.6
1976	7,951.0	11.4	5,084.3	9.7	13,035.3	10.8
1975	7,135.7	10.3	4,633.3	19.1	11,769.0	13.6
Average		9.6%		9.4%		9.4%

*Sales Abroad includes sales generated outside the United States by U.S.-owned PhRMA member companies and sales generated abroad by the U.S. divisions of foreign-owned PhRMA member companies. Sales generated abroad by the foreign divisions of foreign-owned PhRMA member companies are excluded. Domestic sales, however, includes sales generated within the United States by all PhRMA member companies.

**Estimated.

***Revised in 2007 to reflect updated data.

****Sales abroad affected by merger and acquisition activity.

Note: Total values may be affected by rounding.

SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.

TABLE 9: Sales by Geographic Area,* PhRMA Member Companies: 2010

(dollar figures in millions)

Geographic Area*	Dollars	Share
Africa		
Egypt	\$368.1	0.1%
South Africa	789.0	0.3
Other Africa	730.9	0.3
Americas		
United States	\$184,660.3	63.4%
Canada	6,787.0	2.3
Mexico	2,538.5	0.9
Brazil	4,101.9	1.4
Argentina	716.2	0.2
Venezuela	1,562.9	0.5
Columbia	753.8	0.3
Chile	274.7	0.1
Peru	190.2	0.1
Other Latin America (Other South America, Central America, and all Caribbean nations)	1,461.8	0.5
Asia-Pacific		
Japan	\$13,429.9	4.6%
China	3,286.9	1.1
India	1,091.2	0.4
Taiwan	795.8	0.3
South Korea	1,479.2	0.5
Other Asia-Pacific	2,404.7	0.8
Australia		
Australia and New Zealand	\$4,180.8	1.4%
Europe		
France	\$9,547.7	3.3%
Germany	7,753.1	2.7
Italy	6,669.8	2.3
Spain	6,329.4	2.2
United Kingdom	5,650.3	1.9
Other Western European	10,956.9	3.8
Czech Republic	703.3	0.2
Hungary	484.1	0.2
Poland	878.3	0.3
Turkey	1,603.7	0.6
Russia	1,410.4	0.5
Central and Eastern Europe (Cyprus, Estonia, Slovenia, Bulgaria, Lithuania, Latvia, Romania, Slovakia, Malta, and other Eastern European countries and the Newly Independent States)	5,572.6	1.9
Middle East		
Saudi Arabia	\$622.2	0.2%
Middle East (Yemen, United Arab Emirates, Iraq, Iran, Kuwait, Israel, Jordan, Syria, Afghanistan, and Qatar)	1,468.0	0.5
Uncategorized		
	—	0.0
TOTAL SALES	\$291,253.5	100.0%

*Sales abroad include expenditures outside the United States by U.S.-owned PhRMA member companies and sales generated abroad by the U.S. divisions of foreign-owned PhRMA member companies. Sales generated abroad by the foreign divisions of foreign-owned PhRMA member companies are excluded. Domestic sales, however, include sales generated within the United States by all PhRMA member companies.

Note: Total values may be affected by rounding.

SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.

TABLE 10: Domestic R&D Scientific, Professional and Technical Personnel by Function, PhRMA Member Companies: 2010

Function	Personnel	Share
Prehuman/Preclinical	22,508	29.0%
Phase 1	6,287	8.1
Phase 2	8,920	11.5
Phase 3	18,166	23.4
Approval	4,808	6.2
Phase 4	9,427	12.1
Uncategorized	1,917	2.5
Total R&D Staff	72,033	92.7
Supported R&D Non-staff	5,645	7.3
TOTAL R&D PERSONNEL	77,678	100.0%

SOURCE: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2012.