

PhRMA Annual Membership Survey

DEFINITION OF TERMS

Research and Development Expenditure Definitions

R&D Expenditures: Expenditures within PhRMA member companies' US 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 United States. It 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. It 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.

R&D Abroad: Expenditures outside the United States by US-owned PhRMA member companies and R&D conducted abroad by the US 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 I/II/III 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 IV Clinical Testing: Any post-marketing R&D activities performed.

Uncategorized: Represents data for which detailed classifications were unavailable.

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 US-owned PhRMA member companies, and sales generated abroad by the US divisions of foreign-owned PhRMA member companies. Sales generated abroad by the foreign divisions of foreign-owned PhRMA member companies are excluded.



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TABLE 1**Domestic R&D and R&D Abroad, PhRMA Member Companies: 1980–2014**

(dollar figures in millions)

Year	Domestic R&D	Annual Percentage Change	R&D Abroad*	Annual Percentage Change	Total R&D	Annual Percentage Change
2014**	\$41,104.4	1.7%	\$10,121.8	-9.8%	\$51,223.2	-0.8%
2013	\$40,396.0	7.7%	11,217.6	-7.1%	\$51,613.6	4.1%
2012	37,510.2	3.1	12,077.4	-1.6	49,587.6	1.9
2011	36,373.6	-10.6	12,271.4	22.4	48,645.0	-4.1
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	29,772.7	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
Average		10.5%		10.6%		10.5%

*R&D Abroad includes expenditures outside the United States by US-owned PhRMA member companies and R&D conducted abroad by the US 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, 2015.

TABLE 2**R&D as a Percentage of Sales, PhRMA Member Companies: 1980–2014**

(dollar figures in millions)

Year	Domestic R&D as a Percentage of Domestic Sales	Total R&D as a Percentage of Total Sales
2014*	23.4%	17.9%
2013	22.7%	17.8%
2012	21.0	17.3
2011	19.4	15.9
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

*Estimated.

**Revised in 2007 to reflect updated data.

Source: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2015.

TABLE 3**DOMESTIC R&D AND R&D ABROAD*, PhRMA MEMBER COMPANIES: 2013**

(dollar figures in millions)

R&D Expenditures for Human-use Pharmaceuticals	Dollars	Share
Domestic Share	\$40,147.1	77.8%
Abroad* Share	\$11,034.6	21.4%
Total Human-use R&D	\$51,181.6	99.2%
R&D Expenditures for Veterinary-use Pharmaceuticals		
Domestic Share	\$248.9	0.5%
Abroad* Share	\$183.0	0.4%
Total Vet-use R&D	\$431.9	0.8%
TOTAL R&D	\$51,613.6	100.0%

* R&D Abroad includes expenditures outside the United States by US-owned PhRMA member companies and R&D conducted abroad by the US 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..

Notes: 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, 2015.

TABLE 4**R&D BY FUNCTION, PhRMA MEMBER COMPANIES: 2013**

(dollar figures in millions)

Function	Dollars	Share
Prehuman/Preclinical	\$10,717.8	20.8%
Phase I	3,666.9	7.1
Phase II	5,351.3	10.4
Phase III	15,239.2	29.5
Approval	5,395.4	10.5
Phase IV	7,574.2	14.7
Uncategorized	3,668.7	7.1
TOTAL R&D	\$51,613.6	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, 2015.

TABLE 5**R&D BY GEOGRAPHIC AREA*, PhRMA MEMBER COMPANIES: 2013**

(dollar figures in millions)

Geographic Area*	Dollars	Share
Africa		
Egypt	\$14.7	0.0%
South Africa	39.2	0.1
Other Africa	17.7	0.0
Americas		
United States	\$40,396.0	78.3%
Canada	545.1	1.1
Mexico	97.6	0.2
Brazil	138.1	0.3
Argentina	97.5	0.2
Venezuela	11.2	0.0
Columbia	41.1	0.1
Chile	18.1	0.0
Peru	12.2	0.0
Other Latin America (Other South America, Central America, and all Caribbean nations)	299.6	0.6
Asia-Pacific		
Japan	\$913.7	0.6%
China	372.3	0.7
India	26.9	0.1
Taiwan	44.8	0.1
South Korea	39.3	0.1
Other Asia-Pacific	150.4	0.3
Australia		
Australia and New Zealand	\$237.4	0.5%
Europe		
France	\$335.1	0.6%
Germany	660.5	1.3
Italy	207.1	0.4
Spain	213.3	0.4
United Kingdom	1,401.2	2.7
Other Western European	4,652.9	9.0
Czech Republic	39.7	0.1
Hungary	29.5	0.1
Poland	76.9	0.1
Turkey	27.2	0.1
Russia	76.9	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)	131.4	0.3
Middle East		
Saudi Arabia	\$4.3	0.0%
Middle East (Yemen, United Arab Emirates, Iraq, Iran, Kuwait, Israel, Jordan, Syria, Afghanistan, and Qatar)	73.7	0.1
Uncategorized	171.3	0.3%
TOTAL R&D	\$51,613.6	100.0%

*R&D Abroad includes expenditures outside the United States by US-owned PhRMA member companies and R&D conducted abroad by the US 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.

Notes: 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, 2015.

TABLE 6**DOMESTIC SALES AND SALES ABROAD**, PhRMA MEMBER COMPANIES: 1980-2014**

(dollar figures in millions)

Year	Domestic Sales	Annual Percentage Change	Sales Abroad*	Annual Percentage Change	Total Sales	Annual Percentage Change
2014*	\$175,416.4	-0.2%	\$110,633.1	3.5%	\$286,049.6	1.2%
2013	175,759.6	-1.5	\$106,880.1	-0.7	282,639.7	-1.2%
2012	178,437.6	-5.0	107,677.8	-8.1	286,115.4	-6.2
2011	187,870.7	1.7	117,138.5	9.9	305,009.2	4.7
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
Average		8.5%		7.5%		8.0%

* Estimated

** Sales Abroad includes sales generated outside the United States by US-owned PhRMA member companies and sales generated abroad by the US 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.

**Revised in 2007 to reflect updated data.

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

Source: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2015.

TABLE 7**SALES BY GEOGRAPHIC AREA*, PhRMA MEMBER COMPANIES: 2013**

(dollar figures in millions)

Geographic Area*	Dollars	Share
Africa		
Egypt	\$404.9	0.1%
South Africa	603.0	0.2
Other Africa	1,037.3	0.4
Americas		
United States	\$175,759.6	62.2%
Canada	6,625.4	2.3
Mexico	2,193.1	0.8
Brazil	3,648.5	1.3
Argentina	1,074.1	0.4
Venezuela	1,463.7	0.5
Columbia	925.2	0.3
Chile	371.2	0.1
Peru	164.0	0.1
Other Latin America (Other South America, Central America, and all Caribbean nations)	1,069.4	0.4
Asia-Pacific		
Japan	\$14,334.3	5.1%
China	5,629.9	2.0
India	701.1	0.2
Taiwan	1,095.6	0.4
South Korea	1,675.8	0.6
Other Asia-Pacific	3,757.8	1.3
Australia		
Australia and New Zealand	\$2,546.9	0.9%
Europe		
France	\$8,278.3	2.9%
Germany	8,672.0	3.1
Italy	5,586.9	2.0
Spain	5,147.7	1.8
United Kingdom	5,521.9	2.0
Other Western European	10,322.6	3.7
Czech Republic	535.4	0.2
Hungary	414.9	0.1
Poland	787.2	0.3
Turkey	1,343.1	0.5
Russia	1,775.6	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)	6,316.2	2.2
Middle East		
Saudi Arabia	\$986.9	0.3%
Middle East (Yemen, United Arab Emirates, Iraq, Iran, Kuwait, Israel, Jordan, Syria, Afghanistan, and Qatar)	1,870.1	0.7
Uncategorized	–	0.0%
TOTAL SALES	\$282,639.7	100.0%

*Sales abroad include expenditures outside the United States by US-owned PhRMA member companies and sales generated abroad by the US 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, 2015.