

Pharmaceutical Industry: Medical Science Liaison

Background

Pharmacists in industry are employed in a variety of positions. Although practice titles, descriptions, and prerequisites differ by company, the educational requirements for these positions are often similar. Most pharmacists in industry work in the following areas: research and development (addressed in a separate profile), all phases of drug product development, sales and marketing, corporate administration, all phases of clinical trials research, drug information, manufacturing, regulatory affairs, health policy, scientific/professional affairs (e.g., professional relations, professional education, medical science liaison [MSL; addressed in this profile], medical information), and quality control.

Many pharmacists go on to obtain postgraduate degrees to meet the technical demands and scientific duties required in the pharmaceutical industry. Pharmacists with an interest in clinical work can combine this interest with their scientific background in pharmacy by serving as liaisons. MSLs call on a variety of health care professionals to educate them on the uses, merits, and scientific data related to the products their firms produce. Experienced and successful MSLs with administrative and management abilities often rise to supervisory or executive posts in the pharmaceutical industry.

Pharmaceutical industry corporate facilities are located throughout the United States, although there is heavier geographic concentration in the Northeast (including Delaware, New Jersey, New York, and Pennsylvania), the Midwest (including Illinois and Indiana), the Mid-Atlantic (North Carolina), and the West Coast (California), where many biotechnology start-up firms are headquartered. However, most MSL positions are not at the corporate office and in fact are tied more closely to the constituents with whom they work: physicians, pharmacists, and nurses. Many companies have a different perspective of the roles for the MSL and they are often located in different divisions when looking from company to company. Some are within research and development, some in sales and marketing, and some in the corporate division.

According to the survey results, MSLs in the pharmaceutical industry indicated that they spend 37% of their time in the “Other” category. This time probably includes the time they spend working with other health professionals and providing information about their products. This is followed by 12% of their time spent on both data management and project/case management. An additional 11% of their time is spent on teaching.

Characteristics

Twenty-nine Medical Science Liaison pharmacists responded to the 2012 *APhA Career Pathway Evaluation Program* survey. Eighty-five percent of the respondents held a PharmD degree. Thirty-seven percent indicated an advanced degree (MA, MS, MBA, or PhD). Thirty-seven percent had completed a residency program, 20% a fellowship and 29% had received certificate training.

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Respondents' average age was 44 years old. More than half (54%) of the respondents were female. Income data show that only 4% earn less than \$100,000, 21% earn \$110,000 - \$120,000 and a majority, 58%, earn \$150,000 or more.

The majority of respondents indicated that they were satisfied with their work, with 55% indicating "extremely satisfied" and 31% indicating "somewhat satisfied." Respondents related that their work was challenging, with 38% indicating "extremely challenging" and 52% indicating "somewhat challenging."

Insider's Perspective

What aspects of the job are most appealing?

Many respondents indicated that the most appealing aspect of their work was the flexible scheduling. Others enjoyed "the constantly changing activities, things are never boring." One respondent said they enjoyed "providing valuable information to prescribers who can assist patients in making informed choices and better lives.

Several respondents commented that they liked that their job allowed them to use their knowledge; one said they liked "being able to apply my medical and pharmaceutical knowledge to product development and marketing.

What aspects of the job are least appealing?

Several respondents said that they didn't particularly enjoy the amount of travel required by their position. One said "occasionally there are times when there is a lot of travel required and that can be very taxing."

One respondent said the following about the level of specialization that is common in this field: "You can become an expert in one field and it then becomes difficult to keep up in other disease state areas."

What advice should students and practitioners consider when selecting the option of working in the pharmaceutical industry as a medical science liaison?

One respondent summed up the thoughts of many of the others saying: "There is no set routine or schedule for this type of job - you have to be able to manage your own time/schedule and be able to work by yourself from home (no office with colleagues/coworkers, etc.). Being able to work independently and set your own timelines/goals is very important. Also, being flexible with your schedule as sometimes you will have to rearrange things on short notice to accommodate an important meeting or presentation that comes up with little notice."

consumer advocacy groups to ensure access to pharmaceutical products.

= 2.4



Collaboration with Other Professionals

Collaboration with other professionals ranks on the upper end of the scale among MSL pharmacists as noted by the high range 8.7 rating for this factor.

= 8.7



Educating Other Professionals

One of the main roles of the MSL is to present information from a science perspective that provides greater insight into the use of medications for a therapeutic area. Respondents spend time sharing new information and research with physicians, nurses, pharmacists, and others.

= 7.7



Variety of Daily Activities

MSL pharmacists are involved in a variety of daily activities such as meetings, writing, professional reading, travel, presentations, and various other functions.

= 7.8



Multiple Task Handling

MSL pharmacists are used to handling multiple tasks. The variety of work activities they are engaged in require them to multitask most of the time. These pharmacists must juggle many responsibilities.

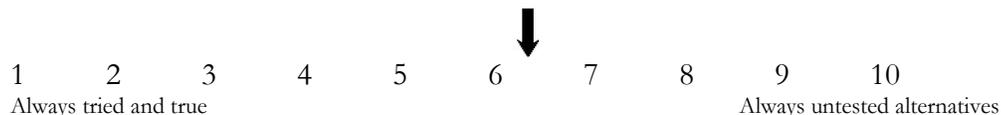
= 8.4



Problem Solving

Problem solving is an important element in the role of an MSL. Resolving problems can enhance long-term relationships with both internal and external clients. These positions provide pharmacists the opportunity to try untested solutions when the tried and true may not work.

= 6.3



Focus of Expertise

Most pharmacists in industry say their pharmacy training and background is crucial to effective performance in their careers. MSL pharmacists tend to be specialized across therapeutic areas; however they also specialize in other areas of interest to the industry such as pharmacoeconomics.

= 7.5



Innovative Thinking

Innovative thinking or new ideas are important components of working with thought leaders and other health care professionals. Creating new and better ways to communicate information to consumers, other health professionals, and media about product advances requires creativity. MSL pharmacists engage in this type of thinking most of the time reflected by the high range 7.8 rating.

= 7.8



Applying Scientific Knowledge

Respondents rated the application of scientific knowledge at 9.1. Considering that one of the roles for the MSL is to present the scientific data for a specific area, it makes sense that they rated this factor high. It is important for the MSL to be able to interpret clinical study data, pharmacoeconomic data, and other information as necessary to be able to educate physicians and other prescribers on the appropriate use of a product.

= 9.1



Applying Medical Knowledge

MSLs apply medical knowledge on a daily basis, especially when working with other health care professionals.

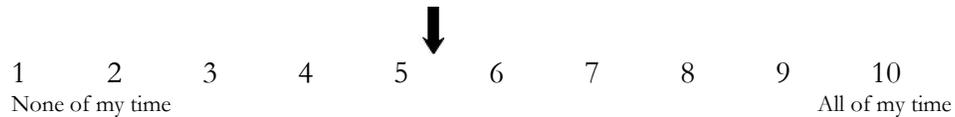
= 9.0



Creating New Knowledge by Conducting Research

Respondents may be involved in research and development of new products, clinical trials, pharmaceutical outcomes studies, and other forms of research that create new knowledge.

= 5.3



Management/Supervision of Others

Supervising and managing others was rated in the low range at 3.0. MSLS tend to work independently. Pharmacist MSLS who advance into regional or district management positions will manage a team of pharmacist and non-pharmacist personnel.

= 3.0



Management/Supervision of a Business

MSLS tend not to spend a great deal of time managing the business. Their focus is much more heavily placed on the medical and scientific evidence related to their products.

= 3.2



Pressure/Stress

Often, pharmacists are pressured to handle many projects and responsibilities at one time and those in the pharmaceutical industry are no exception. MSLS have to balance the needs of the health care professionals they work with and complete the variety of tasks related to their workload.

= 7.0



Work Schedule

MSLS indicated that they tend to have more irregular and unpredictable hours. At times they have to change their plans in response to the needs of others who request their services.

= 4.5



Part-Time Opportunities

Because of the long-term relationships they try to establish and the need to develop ongoing relationships in most MSL positions, part-time opportunities are very limited.

= 1.9



Job-Sharing Opportunities

Similar to the above factor, job-sharing is very limited for MSLs.

= 1.8



Exit/Re-entry Opportunities

MSL pharmacists rated this factor at the 3.8 level. The sticking point is whether the same territory and position will still be available when seeking re-entry.

= 3.8



Parental Leave Opportunities

MSL respondents rated this factor at 7.8. Considering many are employed by larger organizations, parental leave is a benefit that is typically offered.

= 7.8



Leisure/Family Time

Respondents rated this factor at 7.6, indicating that they have opportunities for free time.

= 7.6



Job Security

With so many mergers and consolidations in the industry, consideration must be given to the security of the MSL positions. The MSL pharmacists responding to the survey rated job security at a lower mid-range of 4.4.

Income

Generally, MSL pharmacists feel that they are properly compensated

= 7.8

**Benefits (vacation, health, retirement)**

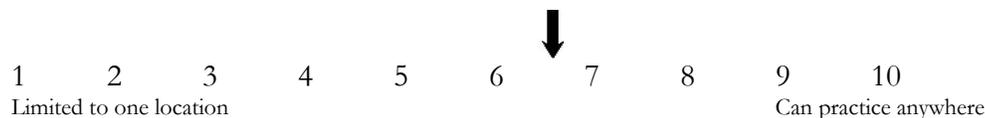
Rated the highest across all profiles, MSL pharmacists rated their benefits in the high range at 8.8. Benefits often go hand in hand with income and pharmacists in industry have very good benefit packages. A key difference in benefit packages within the industry may be the availability of stock options and other bonuses.

= 8.8

**Geographic Location**

MSL pharmacists rated their ability to work just about anywhere with a 6.6.

= 6.6

**Working Remotely**

MSL pharmacists complete much of their work from home and rarely have to go into a central office.

= 8.9

**Autonomy**

Pharmacists who hold MSL positions tend to work independently, scheduling their appointments and carrying out most of their responsibilities with little to no direct supervision. Overall, pharmacists in industry feel they have great autonomy in their work.

= 7.7

**Self-Worth**

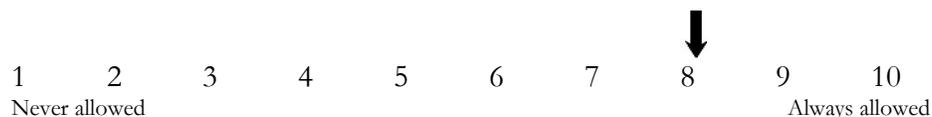
Pharmacists in the industry have a wealth of knowledge. They know their own company's products as well as their competitors' products. They interface with other pharmacists, health professionals, and consumers and believe that their positions provide them with a

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great opportunity to develop personal value and positive outcomes.

= 8.1



Future Focus

MSL respondents tend to look toward a future focus with a rating of 7.6.

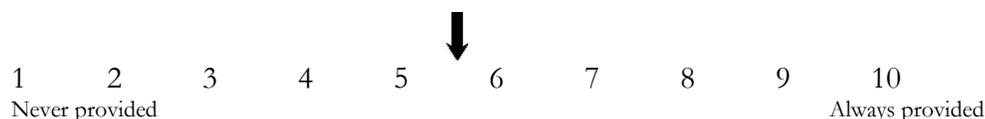
= 7.6



Professional Prestige

MSL pharmacists report a moderate opportunity to develop professional prestige among other pharmacists in the profession. Such opportunities may include educating practitioners about products at their individual practice sites or conducting continuing education programs at national meetings.

= 5.6



Unique Practice Environment

Reflected by a 7.2 rating, respondents feel their positions are somewhat unique. They have the opportunity to work in a number of different areas, with people in positions ranging from administrative to highly specialized sciences and with many different products and therapeutic areas.

= 7.2



Advanced Degree

More often than not, an advanced degree helps to be successful in the pharmaceutical industry. MSL pharmacists indicated that an advanced degree is required, although this may be company specific as some companies require advanced degrees while others do not.

= 8.2



Entrepreneurial Opportunity

Ranked mid-range at 5.0, respondents feel they have some entrepreneurial opportunity. Opportunities vary by position and company as well as where the MSL group is located within the company.

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with colleagues.

= 7.5



Mean Scores for Critical Factors

1. Interaction with people	4.0
2. Performing physical assessments	1.0
3. Interpreting laboratory values	2.7
4. Continuity of relationships	6.9
5. Extent to which effect is direct	2.4
6. Collaboration with other professionals	8.7
7. Educating other professionals	7.7
8. Variety of daily activities	7.8
9. Multiple task handling	8.4
10. Problem solving	6.3
11. Focus of expertise	7.5
12. Innovative thinking	7.8
13. Applying scientific knowledge	9.1
14. Applying medical knowledge	9.0
15. Creating new knowledge by conducting research	5.3
16. Managing others	3.0
17. Managing business operations	3.2
18. Pressure/Stress	7.0
19. Work schedule	4.5
20. Part time opportunities	1.9
21. Job sharing	1.8
22. Exit and re-entry	3.8
23. Parental leave	7.8
24. Free time for leisure/family activities	7.6
25. Job security	4.4
26. Opportunities for advancement	5.5
27. Opportunities for leadership development	6.7
28. Community prestige	5.2
29. Professional involvement	6.2
30. Income	7.8
31. Benefits (vacation, health, retirement)	8.8
32. Geographic location	6.6
33. Working Remotely	8.9
34. Autonomy	7.7
35. Self-Worth	8.1
36. Future focus	7.6
37. Professional prestige	5.6
38. Unique practice environment	7.2
39. Advanced degree	8.2
40. Entrepreneurial opportunity	5.0
41. Additional training	7.2
42. Interacting with co-workers	8.0
43. Travel	6.1
44. Writing	4.7
45. Working with teams	7.5

Reference

Schommer JC. *APhA Career Pathway Evaluation Program for Pharmacy Professionals 2012 Pharmacist Profile Survey*. February 2013.

Professional Organizations

Accreditation Council for Pharmacy Education (ACPE)
135 S. LaSalle Street., Suite 400 Chicago, IL 60603
Tel: 312-664-3575 Fax: 312-664-4652
www.acpe-accredit.org

American Association of Pharmaceutical Scientists (AAPS)
2107 Wilson Blvd., Suite 700, Arlington, VA 22201
Tel: 703-243-2800 Fax: 703-243-9650
www.aaps.org

American Foundation for Pharmaceutical Education (AFPE)
One Church Street, Suite 202, Rockville, MD 20850
Tel: 301-738-2160 Fax: 301-738-2161
www.afpenet.org

American Pharmacists Association (APhA)
2215 Constitution Ave, NW, Washington, DC 20037
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www.pharmacist.com

National Pharmaceutical Association (NPhA)
107 Kilmayne Drive, Suite C, Cary, NC 27511
Tel: 800-944-NPhA Fax: 919-469-5870
www.npha.net

Pharmaceutical Research and Manufacturers of America (PhRMA)
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