

Medical Writer Apprentice Programs: Who Has Them, What Are They Like, and Do We Need More? Survey Results From 2022

Kim Jochman,¹ Rona Claire Grunspan,² Jeanette Towles,³ Rona Vasey,⁴ Linda Yih,⁵ on behalf of the AMWA

Apprenticeship Framework Working Group / ¹Merck & Co, Inc, Rahway, NJ; ²ICON plc, Dublin, Ireland; ³Synterex, Inc, Dedham, MA; ⁴Trilogy Writing and Consulting, Frankfurt, Germany; ⁵Parexel International, LLC, USA

ABSTRACT

In 2022, the American Medical Writers Association (AMWA) established a taskforce to develop a survey to understand the current state of medical writer apprentice programs and the desire for a standard framework to help guide the development of such programs. The survey was targeted to contributors who were actively responsible for leading and/or training and developing a medical writing team and was administered by using SurveyMonkey. A total of 78 responses were received, with the largest percentage of respondents primarily working in pharmaceutical/biotech/medical device companies (44%), followed by contract research organizations (CROs)/medical writing companies (23%), and medical writing consultancies (10%). The survey revealed that less than half (42%) of survey respondents' companies currently have an established apprentice program, and that CROs (73%) and medical writing-specific consultancies (57%) were more likely to have apprentice programs than pharmaceutical/biotech/device companies (24%). The respondents also provided details about the goals, training styles, structures, and durations of existing programs. Importantly, regardless of whether respondents' companies already have an apprentice program, the majority of respondents felt it would be useful to have a standard framework for an apprentice program either to refine existing programs or to develop a new program. Therefore, the AMWA Executives Advisory Council established an Apprenticeship Framework Working Group to develop a standard yet flexible framework for companies to use as an adaptable resource as they develop their own apprentice programs. The development of this framework is ongoing at the time of publication of this article.

Interest in the medical writing profession has increased over recent years, with candidates ranging from university graduates to those seeking a career change from within or outside the health care industry. Furthermore, demand for experienced medical writers continues to be very high, with the estimated value of the global medical writing market

forecasted to more than double in the next several years (from \$3.8 billion in 2022 to \$8.4 billion in 2030).¹ Novel approaches are therefore necessary to sustainably develop a pipeline of new talent, and the need for structured development programs for new medical writers has emerged. Apprenticeships or similar trainee programs have been successful for some companies to bring new writers into the profession and ensure their development.

The American Medical Writers Association (AMWA) Executives Advisory Council established a taskforce in 2022 to learn more about existing apprenticeships/trainee programs. The team also sought to determine whether companies without such a program would find a framework useful, should they pursue this option. Consequently, a survey was developed to explore the above. The results of the survey were presented at the AMWA 2022 Executive Forum to kick off a full-day discussion on apprentice programs.²

SURVEY DESIGN AND OBJECTIVES

The survey was administered by AMWA anonymously (respondent and company names were optional) via an online platform (SurveyMonkey) and targeted contributors who were actively responsible for leading and/or training and developing a medical writing team, regardless of the types of documents they produced (eg, regulatory, publications, medical communication). To gain as much information as possible, respondents were encouraged to forward the survey to other eligible individuals within their organization. The survey was also posted on the AMWA site and promoted via social media. An option to do a brief interview with a taskforce member to gather additional details of the organization's apprentice program was included at the end of the survey.

Apprenticeships/trainee programs are referred to as "apprentice programs" throughout this article and are generally defined as programs that seek to develop entry and/or junior-level medical writers over an extended period (>6 months). Training topics for this type of program go beyond the standard training program all companies are

required to have in place (eg, to meet Good Clinical Practice requirements).

Recognizing the limitations on respondents' availability for such a survey, we developed a set of questions that would capture key points on training programs. These questions targeted program goals, training topics, methods and structure, training source, duration, and whether a standard framework would be useful to further develop their program. Most of the questions were multiple choice and included an "Other (specify)" option where appropriate. The survey also included a checkpoint question to direct respondents who did not have an apprentice program to a set of follow-up questions regarding whether they had plans to implement such a program within 2 years and whether a standard framework would be useful as a starting point.

For those who agreed to follow-up interviews, we prepared 5 questions. These elaborated on what prompted the development of an apprentice program, components of their program, how training is structured, and overall feedback or lessons learned. After beta testing, the survey opened in late July 2022 and was available until early September 2022. Interim views of the data were done in August to confirm adequate participation, and follow-up interviews were conducted during September to early October 2022.

SURVEY RESPONDENT PROFILE

Among 78 survey respondents, the largest percentage noted their primary work setting as pharmaceutical/biotech/medical device companies (44%), followed by contract research organizations (CROs)/medical writing companies (23%) and medical writing consultancies (10%). The majority (63%) of the respondents primarily focus on regulatory writing, and most (82%) have a role in training and developing medical writers as part of their job duties (Figure 1).

Among 66 survey respondents who provided information regarding the approximate number of medical writers in their company (excluding contractors and nonwriting managers), the majority (58%) were in departments that have fewer than 20 medical writers, with an approximately equal number of respondents from companies with 20-50 (14%), 51-100 (14%), or more than 100 (15%) medical writers. Junior-level writers were largely noted to comprise up to 50% of the writers in these departments (73% of respondents), with some groups having a higher percentage of junior writers (Figure 2).

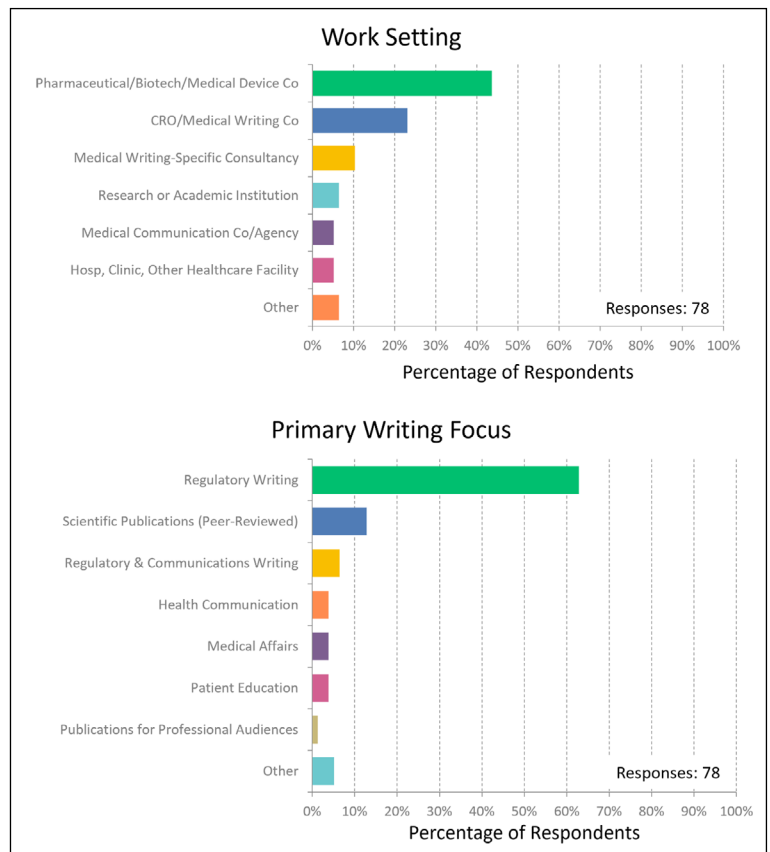


Figure 1. Survey respondents by primary work setting and primary writing focus.

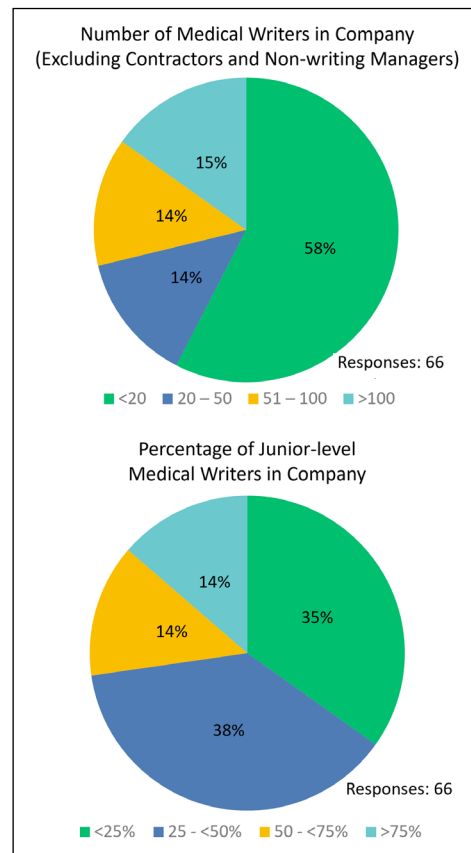


Figure 2. Approximate size of respondents' medical writing teams and percentage of junior-level medical writers within those teams.

Of note, some companies had more than 1 survey respondent; however, it was not possible to identify the exact number of companies with multiple survey respondents because the self-reporting of the organization/company name was an optional question and was only completed by 38 of the 78 survey respondents. In addition, it is possible that respondents from the same company were responding about different medical writing departments within that company. As such, all survey responses from each company were retained.

WHAT TYPES OF COMPANIES HAVE APPRENTICE PROGRAMS?

Of the 66 respondents to the question, “Does your company have an established apprenticeship or training program,”

42% responded “Yes.” The “Yes” responses were summarized by type of work setting, primary writing focus area, size of Medical Writing team/department, and percentage of junior-level medical writers (Table 1). The following trends were noted:

- For the most common types of work settings, CROs (73%) and medical writing-specific consultancies (57%) were more likely to have apprentice programs than pharmaceutical/biotech/device companies (24%).
- Medium (20-50 medical writers) to larger-sized (51-100 medical writers, >100 medical writers) organizations were more likely to have apprentice programs than smaller organizations (<20 medical writers).
- Medical writing organizations composed of 25%-<50% junior-level medical writers were more likely to have

Table 1. Types of Companies That Have Medical Writing Apprentice Programs

	Number (%) With Apprentice Programs		Total Number of Respondents in Category
	n	%	n
All Respondents	28	42.4	66
Respondents by Type of Work Setting^a			
Pharmaceutical/biotech/medical device company	8	24.2	33
Contract research organization/medical writing company	11	73.3	15
Medical writing-specific consultancy	4	57.1	7
Research or academic institution	1	25.0	4
Medical communication company/agency	3	75.0	4
Hospital, clinic, other health care facility	0	0	1
Other (please specify)	1	50.0	2
Respondents by Primary Writing Focus^b			
Regulatory writing	19	44.2	43
Scientific publications (peer-reviewed)	4	40.0	10
Regulatory and communication writing	1	20.0	5
Medical affairs	2	66.7	3
Patient education	0	0	2
Publications for professional audiences	1	100	1
Other (please specify)	1	50.0	2
Respondents by Size of Medical Writing Team/Department			
<20 medical writers	8	21.1	38
20-50 medical writers	4	44.4	9
51-100 medical writers	8	88.9	9
>100 medical writers	8	80.0	10
Respondents by Percentage of Junior-Level Medical Writers on Team/in Department			
<25%	9	39.1	23
25%-<50%	14	56.0	25
50%-<75%	3	33.3	9
>75%	2	22.2	9

^aIn order of most to least common work setting.

^bIn order of most to least common writing focus.

apprentice programs than those with <25% or ≥50% junior-level medical writers.

WHAT DO APPRENTICE PROGRAMS LOOK LIKE?

The 28 individuals who indicated that their companies do have an established apprentice program were asked follow-up questions to better understand key elements of their training programs. Twenty-seven of the 28 individuals responded to these follow-up questions.

Goals and Reasons for Apprentice Programs

The primary goal of the majority (74%) of apprentice programs was to ensure medical writers have the context and skills needed to perform the role in the current landscape. The most common secondary goal was to expand the medical writing talent pool (41%) (Table 2).

In the follow-up interviews, the 8 respondents who agreed to participate were asked what unmet needs prompted their organizations to start an apprentice program. The majority of the interviewees were prompted to start an apprentice program because they recognized the challenges of finding experienced medical writers in today’s environment. Interviewees also noted the desire to gain additional medical writers and to hope-

fully retain new talent by providing them with the tools and knowledge to succeed. By developing an apprentice program within their organizations, several interviewees were looking for gains in productivity and an overall increase of job satisfaction within their medical writing teams. Overall, the interviewees found the programs very positive in helping to resolve their unmet needs.

Training Styles and Content in Apprentice Programs

According to survey respondents, the most common core topics included in existing apprentice programs were document-specific knowledge (85%) and general writing skills (81%). Other core topics included analytical skills, technical aptitude, leadership/soft skills, and drug development knowledge (Figure 3).

Most of the respondents indicated that their apprentice programs utilized a team training approach rather than an

Table 2. Primary and Secondary Goals of Medical Writing Apprentice Programs

Goals	Number (%) Who Selected This as Primary Goal (N = 27)		Number (%) Who Selected This as Secondary Goal (N = 27)	
	n	%	n	%
Ensure writers have the context and skills needed to perform the role in the current landscape.	20	74	6	22
Expand the medical writer talent pool.	6	22	11	41
Support and champion the medical writing industry.	0	0	4	15
Development opportunities requested by writers.	0	0	4	15
Other	1	4	2	7

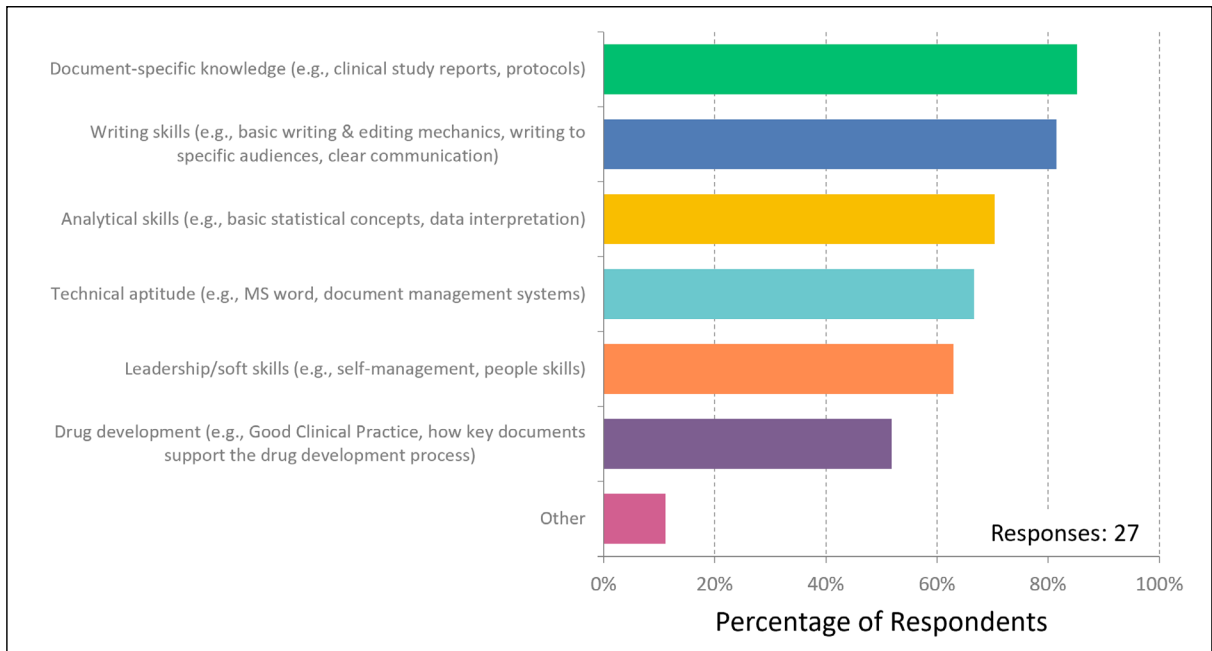


Figure 3. Percentage of apprentice programs that offer specified core training topics.

individual trainer (81%), with a mix of shadowing/coaching (93%), lecture-style presentations (85%), and self-learning (81%). Training was generally provided by other medical writers (85%) and/or medical writing managers (70%).

Based on the responses from the 8 interviewees, most apprentice programs offered a theoretical learning component (eg, classroom learning, self-serve online modules, workbooks) and a practical hands-on learning component (eg, pairing with senior writers as trainers/mentors, coaching sessions). These programs typically start the apprentice on authoring simpler document types and progress to more complicated documents as they learn. The apprentices typically receive feedback on performance and evaluation from clients, mentors, and management.

Structure and Duration of Apprentice Programs

There was a mix of time-based (26%; apprentices must complete the program in a specified amount of time), competency-based (37%; apprentices work at their own pace, but must demonstrate a certain skill level to progress), hybrid (33%; apprentices must meet time and skill requirements to prog-

ress), and other (4%) structures. The majority (67%) of program durations ranged from 6 months to 2 years (Figure 4).

There was a mix of how frequently new apprentices were onboarded into programs (ie, on a rolling basis, as a cohort) (Figure 5). Twenty-three of the 27 respondents (85.2%) indicated that program participants were brought on as regular company employees; the remaining 4 respondents indicated that participants who successfully completed the program were subsequently hired into the company as regular company employees or were offered a formal recommendation into a permanent role.

Notably, 63% of respondents whose organizations already have an established apprentice program thought it would be useful to have a standard framework in order to further develop their program (Figure 6).

WHAT ABOUT COMPANIES WHO DO NOT HAVE AN APPRENTICE PROGRAM?

Of the 66 respondents to the question, “Does your company have an established apprentice or training program,” 58% responded “No.”

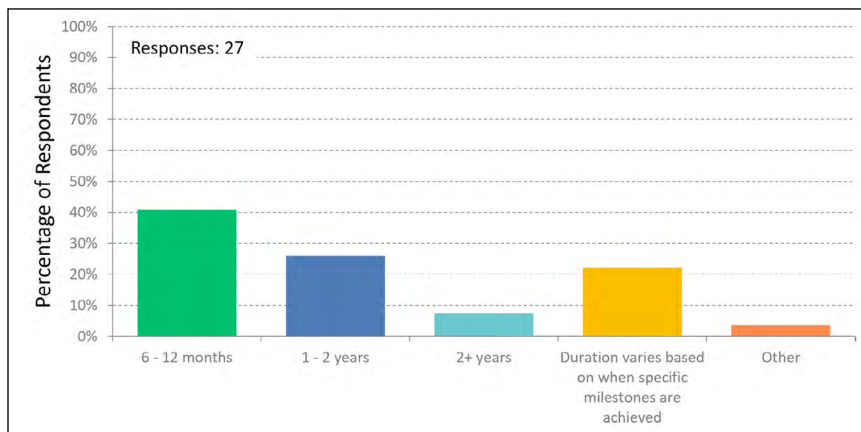


Figure 4. Duration of apprentice programs.

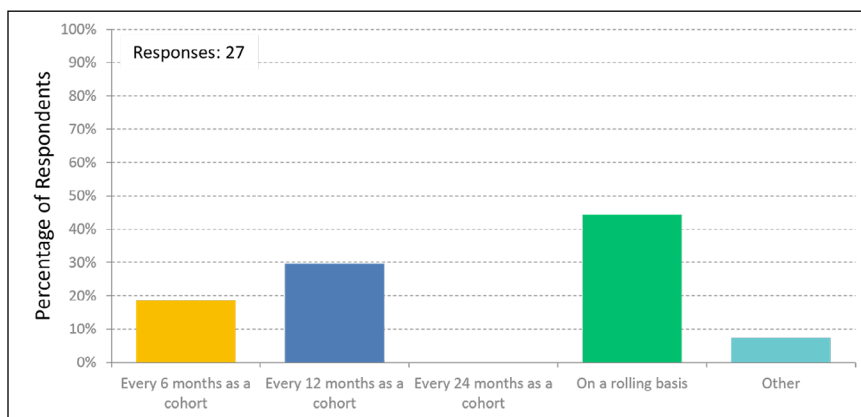


Figure 5. Frequency of onboarding new apprentices.

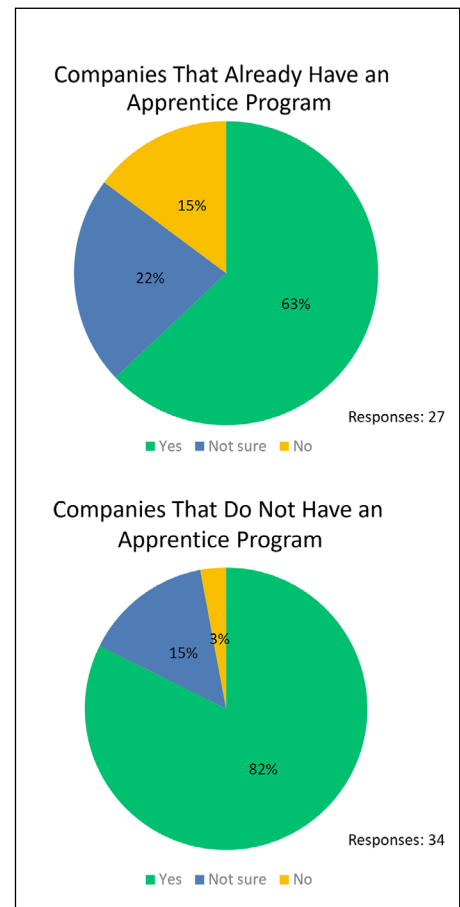


Figure 6. Would a standard framework for an apprentice program be useful?

The 38 respondents who indicated that their companies do not have an established apprentice program were asked follow-up questions to better understand why their companies did not have programs. Of these 38 respondents, 33 or 34 responded to each follow-up question.

When asked why they do not have an apprentice program, more than half (61%) said they lack the resources to provide training, and 46% said they have no to very few junior-level medical writers to train at their organization. However, 21% said their organization is planning to implement an apprentice/trainee program within the next 2 years. Most respondents (82%) who did not have an established apprentice/trainee program thought it would be useful to have a standard framework available to aid future implementation (Figure 6).

SUMMARY AND LOOKING FORWARD

The objectives of the survey were to understand how many and what types of companies currently have medical writer apprentice programs; the goals, training styles, structures, and durations of existing programs; and the desire for a standard framework to help guide the development or enhancement of apprentice programs.

The survey responses showed that less than half of the respondents' companies had medical writer apprentice programs, and that CROs and medical writing-specific consultancies were substantially more likely to have such programs than pharmaceutical/biotech/device companies. The primary goal of the majority of apprentice programs was to ensure medical writers have the context and skills needed to perform the role, and the most common reason for starting an apprentice program was related to challenges in finding experienced medical writers in today's environment.

Many existing apprentice programs include training in document-specific knowledge and general writing skills. Notably, less than two-thirds of programs include training in leadership and soft skills. In a recent survey, teams indicated that leadership and collaboration skills were the values that they perceive as medical writers' greatest contributions. However, when medical writers were asked to identify areas in which they needed more opportunities to learn, leadership skills and collaborative skills/diplomacy were 2 of the most common focus areas.³

The survey responses suggest that existing apprentice programs vary in terms of structure, duration, and how frequently new participants are brought into programs. Of the companies that do not have established apprentice programs, more than half indicated that they lack the resources to provide training, and 21% said their organization is planning to implement an apprentice program within the next 2 years.

Importantly, regardless of whether or not respondents' companies already have an apprentice program, the majority of respondents felt it would be useful to have a standard framework for an apprentice program either to refine existing programs or to develop a new program. As such, and in follow up to the discussions held at the 2022 AMWA Executive Forum,² the AMWA Executives Advisory Council established an Apprenticeship Framework Working Group to create a standard yet flexible framework for companies to use as an adaptable resource as they develop their own apprentice programs. The creation of this framework is ongoing at the time of publication of this article.

Acknowledgments

We thank Julia Forjanic-Klapproth, Trilogy Writing and Consulting, and Julia Cooper, Parexel International, for their input into the design of the survey and the interpretation of the results, and for their review of the manuscript. We also thank Susan Krug, AMWA Executive Director, who provided significant support setting up the survey and communicating to survey participants.

Author declaration and disclosures: *The authors note no commercial associations that may pose a conflict of interest in relation to this article.*

Author contact: *kimberly.jochman@merck.com*

References

1. Medical writing market size, share & trends analysis report by type (clinical, regulatory), by application (medical journalism, medico marketing), by end use, by region, and segment forecasts, 2022-2030. Grand View Research, Inc. Published 2022. Accessed March 1, 2023. <https://www.grandviewresearch.com/industry-analysis/medical-writing-market>
2. Mas M, Worley J, Diskin S, et al. AMWA's Fourth Medical Writing Executives Forum: Creating an Apprentice Program to Develop the Next Generation of Medical Writers. *AMWA J.* 2023; 38(2):61-67.
3. Harris D, Tyrrell C, Myers A, et al, on behalf of the AMWA Value of Medical Writing Working Group. Value of medical writing: the regulatory writer's perspective. *AMWA J.* 2021;36(4):152-158.