

**AMWA NEWS**

# AMWA’s Fourth Medical Writing Executives Forum: Creating an Apprenticeship Program to Develop the Next Generation of Medical Writers

Marta Mas,<sup>1</sup> Janice Worley,<sup>2</sup> Shiri Diskin,<sup>3</sup> Lynne Munno,<sup>4</sup> Robin Whitsell,<sup>5</sup> and Julia Cooper<sup>6</sup> / <sup>1</sup>TFS HealthScience, Barcelona, Spain; <sup>2</sup>ProPharma, Raleigh, NC; <sup>3</sup>Bioforum Group, Tel Aviv, Israel; <sup>4</sup>Takeda, Cambridge, MA; <sup>5</sup>Whitsell Innovations, Inc, Chapel Hill, NC; <sup>6</sup>Parexel International (IRL) Limited, Dublin, Ireland

**ABSTRACT**  
The Fourth Annual Medical Writing Executives Forum took place during the 2022 American Medical Writers Association (AMWA) Medical Writing & Communication Conference with the aim of bringing together heads of medical writing departments to discuss relevant topics in medical writing. This year’s theme focused on the development of a framework for a medical writing apprenticeship program. The participants shared their experiences to begin laying the foundation for a successful medical writing apprenticeship program framework that can be customized and deployed as needed to help develop and grow the next generation of medical writers.

subject related to apprenticeship programs, including considerations for a business case, guidance on program structure and duration, core topics, learning methods, best practices for recruitment, and defining success of the program.  
This manuscript details the discussion of Forum members with the goal of supporting AMWA members in justifying, establishing, recruiting, and assessing the success of an apprenticeship program.

**CONSIDERATIONS FOR A BUSINESS CASE**  
Apprenticeships and similar programs are an effective way to develop a pipeline of new medical writing talent. Such programs require allocation of significant time and resources to achieve the desired outcome, and in many companies, a business case is needed to obtain approval to

**INTRODUCTION**  
In 2018, the American Medical Writers Association (AMWA) began an Executives Forum initiative with the aim to convene medical writing department heads to interact and discuss topics of interest in the medical writing field.  
Against that backdrop, the Fourth Annual Executives Forum took place on November 2, 2022, in Denver, Colorado, led by Julia Cooper, Chair of the AMWA Executives Advisory Council. The Forum attendee companies, provided in Table 1, included representatives of small, midsize, and large pharma; contract research organizations; and other service providers. The theme was how to develop an apprenticeship program as a valuable tool to support the future of medical writing by offering an educational opportunity to the candidates as well as supporting the growth of the involved companies. The Forum began with a presentation of the results of an AMWA survey conducted in 2022 to obtain a snapshot of existing apprenticeship programs within the medical writing community. The survey presentation was a great starting point and provided context to Forum participants. However, the survey is not the focus of this article and will be discussed in greater detail in a separate publication.  
For the main part of the Forum, participants were divided into 6 breakout groups, each addressing a specific

**Table 1.** 2023 Medical Writing Executives Forum Attendee Company List

<ul style="list-style-type: none"> <li>• AbbVie</li> <li>• Alexion, AstraZeneca Rare Disease</li> <li>• Amgen Inc.</li> <li>• AMWA</li> <li>• Astellas Pharma</li> <li>• Bannick LLC, a primary device group</li> <li>• Bioforum CDMC</li> <li>• Boehringer Ingelheim</li> <li>• Bristol Myers Squibb</li> <li>• Certara Synchrogenix</li> <li>• CSL Behring</li> <li>• Genmab</li> <li>• Gilead Sciences</li> <li>• ICON plc</li> <li>• Incyte</li> <li>• Janssen, Johnson &amp; Johnson</li> <li>• Jazz Pharmaceuticals</li> <li>• Merck &amp; Co., Inc.</li> <li>• Moderna, Inc.</li> <li>• Organon</li> </ul>	<ul style="list-style-type: none"> <li>• Otsuka Pharmaceutical Development &amp; Commercialization</li> <li>• Parexel</li> <li>• Pfizer</li> <li>• ProPharma</li> <li>• PTC Therapeutics</li> <li>• Reata Pharmaceuticals</li> <li>• Regeneron Pharmaceuticals, Inc.</li> <li>• RRD International, LLC</li> <li>• Seqirus, a CSL company</li> <li>• Spark Therapeutics</li> <li>• Syneos Health</li> <li>• Synterex, Inc.</li> <li>• Syros Pharmaceuticals</li> <li>• Takeda</li> <li>• TFS HealthScience</li> <li>• Trilogy Writing &amp; Consulting</li> <li>• Whitsell Innovations, Inc.</li> <li>• Zentalis</li> </ul>
---	--

proceed. The breakout group discussed how best to present the benefits and return on investment for typical apprentice programs. It was recommended to divide the business case into financial benefits, which can usually be quantified at some level, and benefits that can be more difficult to measure, such as cultural and efficiency gains.

Examples of financial benefits include:

- **Recruiter cost savings.** It is often easy to hire entry-level employees for an apprentice program, whereas hiring at a senior level could involve expensive recruitment agencies.
- **Lower cost resource.** Although not fully trained, apprentices can often get involved in simple project work a few months into the apprentice program at a lower cost. This frees up senior-level resources to focus on more complex documents. Even if additional hours are factored in, to account for apprentices needing a little longer to complete the same task, there can still be an overall cost saving.
- **Senior-level writers hired may still need substantial training** in the company processes and (in some cases) because of misalignment between senior role expectations across companies, which could potentially cost more than trainees.
- Because of pressure on availability of senior writers in the market, **an apprentice program can allow the group to grow faster** than if only senior writers are hired.
- Apprentice programs that include an element of cross-training facilitate **scalability in line with business needs**.
- **Attrition is generally lower** among apprentices as they build strong bonds and loyalty to the company. This can be enhanced through completion bonuses or stock options to promote retention.
- Allowing senior writers to train apprentices while still working on billable activities may **reduce senior writer attrition** because experienced writers often find delivering training very rewarding. Trainers could be provided a time budget as a guide on how long to spend, and these hours should be included in the overall apprentice program budget. Reduced senior writer attrition stabilizes compensation models because frequent movement between companies drives up salaries.

Qualitative benefits include the following:

- Apprentices are **trained in the company processes from the start** (no undoing of bad habits required).
- Through a targeted hiring strategy, apprentice

programs create a **larger, more diverse pool** of well-trained medical writers.

- **Sharing the work** between the apprentices and their senior colleagues (eg, through job shadowing) **forms strong bonds** and relationships in the department.
- **Apprentices provide useful support to senior writers**, allowing the senior writers to delegate some of the work and improve their own work-life balance.
- Apprentice programs provide a **forum for informal knowledge-sharing** between less experienced and senior writers.
- **Attrition among apprentices is typically lower**, which improves morale across the team.
- By developing strong, well-trained medical writers, apprentice programs contribute to **improvement in the overall quality of clinical research**.
- Apprentice programs can be an integral part of a robust **succession planning and sustainability strategy**.

When faced with the need to justify the development of a medical writing apprentice program, understanding and identifying specific internal business drivers and quantifying long- and short-term advantages will help with building a well-rounded business case.

## GUIDANCE ON PROGRAM STRUCTURE AND DURATION

Once the business case has been established, the first step for any company in creating an apprentice program should be to define their goal. The breakout group acknowledged that this may vary from company to company; thus, it is important to define the *structure and duration* of an apprentice program, and the following questions should be considered:

### Structure

- Is the goal to have someone write something as quickly as possible? Or is it to develop and retain medical writers with soft skills and broader context?
- Should the program be time-based, competency-based, or a hybrid?
- How many apprentices should be brought in at one time?
- If the company is small, how will the concept of an apprentice program be applied?
- Should the program include fellowships partnering with an academic institution?
- Would apprentices be hired who do not have the typical educational background or skill set that is generally sought after when hiring medical writers? If yes, how will the program be adapted?

## Duration

- What is the overall recommended duration for an apprentice program cycle?

In answer to some of the above questions, the breakout group recommended the following:

1. **Using a hybrid approach** in which the company defines competencies based on their current and future business needs while identifying the needs and/or gaps of the individual and defining the timeframe in which those competencies should be demonstrated.
2. **Bringing in cohorts of at least 2** depending on the size of the company, business needs, and the availability of senior-level medical writers to train.
3. **Using an apprentice program even if the company is small**, because it can be adapted and customized for each company, regardless of size.
4. **Using an academic institution** if the company has a relationship with one.
5. **Hiring apprentices who do not fit the mold of a regular medical writer**, which can bring the benefit of diversity of thought and experience to the company. However, if this is done, a needs assessment/gap analysis should be performed and the individual's apprentice program experience tailored accordingly.

6. **Establishing an apprentice program with a duration of anywhere from 6 months to 2 years** depending on program structure and individual and/or company needs. The breakout group proposed a suggested duration for an example program in Figure 1. In Year 1, the medical writer works on lower complexity documents, and as they gain document knowledge and build an understanding of medical writing concepts, they move onto higher complexity documents in Year 2+. The ultimate goal of the program would be for the medical writer to independently manage a project from start to finish.

## CORE TOPICS

The next step in building a medical writing apprentice program is to identify the specific content or curriculum that will form the basis of the program. Because medical writing is more than simply putting words on a page, the participants in the core topics breakout group agreed that a well-rounded medical writing apprentice program will include not only technical training on medical writing-related skills

but also provide a solid foundation of broader, essential soft skills training (eg, project/stakeholder management, time management, etc.). The goal of this discussion was to identify the core topics for inclusion in the program as well as what specific content should be included within each area. The discussion centered on some of the most relevant skills that contribute to being a proficient medical writer, irrespective of what type of documents are being written, and to identify and outline core topics and suggest minimum content within each of them.

The 4 core topic areas or domains agreed upon by the breakout group for inclusion in an apprentice program are presented in Figure 2. The content of each core topic area was explored, and the participants in the breakout group agreed that within each topic or domain, the list of individual subtopics could vary significantly depending on how the program will be deployed.

## Medical Writing-Related Skills and Knowledge

The participants in the breakout group acknowledged that these skills form the initial basis of a solid medical writing apprentice program. It was agreed that there is a minimum level of core knowledge that every individual needs as they embark on their journey to becoming a medical

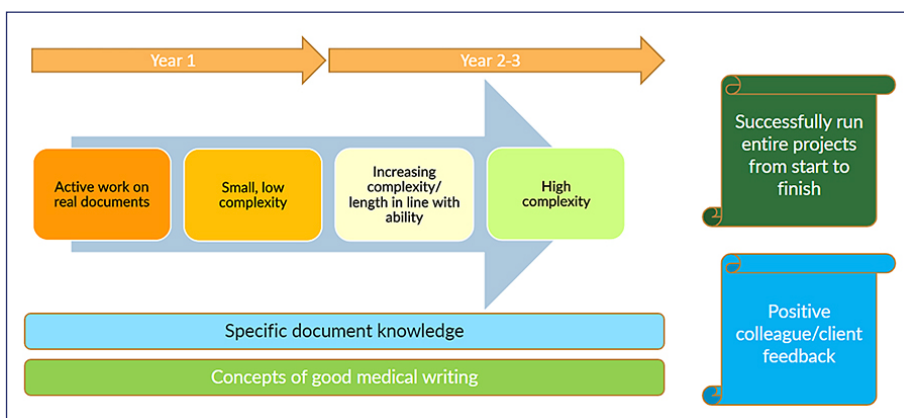


Figure 1. Suggested apprentice program duration.

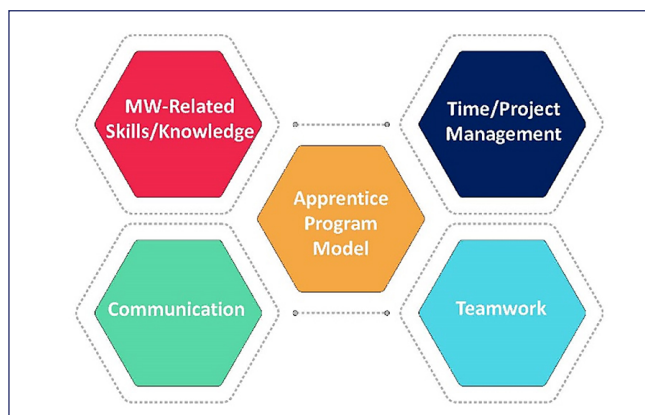


Figure 2. Apprentice program model core topics. MW, medical writing.

writer. An understanding of the drug development process, the relevant documents within the development lifecycle, and how they all relate to each other is a fundamental requirement, especially for a regulatory medical writer. In addition, the participants in the breakout group felt it was essential to instill a solid understanding of basic statistics, lean authoring, and good documentation principles. Other skills included knowledge of technology-driven tools, document preparation, and review processes as well as the use of the quality check (QC). This is not a comprehensive list of all the medical writing-related skills and knowledge, but it represents an essential starting point for establishing a solid foundation in medical writing. The group acknowledged that customizations to this core topic could include building out document and/or therapy area-specific trainings.

### **Time/Project Management**

Within this core topic, the participants in the breakout group agreed that any curriculum for an apprentice medical writer program should include a basic education on project planning, execution, and management. This would include, at a minimum, training on timeline development and management as well as training on essential skills of negotiation, decision-making, time management, prioritization, and risk mitigation and management. The focus of the discussion centered on these topics, and the participants acknowledged that other aspects of this topic could be included but that these represented a vital primary skill set for a medical writer to master.

### **Communication**

Medical writing at its core is about effective and purposeful communication, on and off the page. Within this subset of skills, there are many different types of training that could be implemented and deployed. However, the participants in the breakout group agreed that a robust medical writing apprentice program should include training on appropriate and effective professional communication. An important and often overlooked aspect of communication in medical writing is how to establish and align expectations, which is crucial when working with a group of cross-functional stakeholders and contributors. Another fundamental aspect of the communication skill set for a medical writer to master is effectively driving and leading team meetings. Incorporating essential training around managing and driving meetings, including how to influence without authority, was considered by the breakout group participants to be an essential facet of any medical writing training program.

### **Teamwork**

Most medical writers operate as part of a cross-functional

team and in some cases function as a process driver, driving the overall development of a medical writing deliverable. This requires a level of leadership and the ability to navigate the individual team dynamics to solve problems, mediate differences of opinion, and foster and encourage group harmony. Although these skills take time and confidence to build, the participants in the breakout group agreed that a medical writing apprentice program should include specific training to begin developing them as early as possible. Several topics were identified for inclusion such as navigating difficult personalities and interpersonal relationships, conflict resolution and problem solving, and navigating team lifecycle and contingency planning. The participants in the breakout group acknowledged that this was one core topic that could have a large variety of topics covering a broad range of soft skills.

### **LEARNING METHODS**

Another important factor for consideration in the apprentice program model is how the curriculum will be delivered. This breakout group discussed some learning methods that have been tried in different medical writing departments and have been proven to work well as well as who should deliver the training.

The breakout group agreed that as a starting point, each person's baseline knowledge/skill set and background (Talent Assessment) should be evaluated at entry to serve as a basis for and guide the individualization of the apprentice program. This evaluation should not rely solely on self-presentation of a candidate because they could overestimate their experience or the extent to which their previous writing tasks (eg, journal articles or grant applications during graduate school) qualify them to perform regulatory writing tasks or highly complex medical communication projects.

It was also agreed by the breakout group that it was important for training to start as early as possible.

When considering specific learning methods, some of the established methods recommended by the breakout group included the following:

- Completion of the AMWA Essential Skills program
- Completion of mock writing tasks (could also be used as Talent Assessment tools)
- Implementation of simple QC findings
- Review of completed documents and team/QC comments on drafts to understand expectations from specific document types as well as learn the style guide and get acquainted with working processes
- Completion of live project work – partnering with a senior writer as a contributor (eg, writing document sections, performing QCs)

- Gradual advancement to writing full low-level, low-complexity documents
- Attending project meetings, such as kickoff meetings, data interpretation meetings, comment resolution/consensus meetings and lessons-learned meetings (even if outside the assigned teams). It was recommended to have the trainee engaged in the meeting by taking minutes rather than simply being a passive participant.
- Participation in meeting debriefings (lessons learned: how to read the room, understanding the approach and the strategy)

The breakout group also emphasized the need for soft-skill training. Some methods that can be applied to train medical writers on soft skills include the following:

- Completion of relevant AMWA courses and workshops
- Presentation to colleagues (eg, sharing learnings from attending AMWA, presenting a timeline to a team) in support of having the trainee learn and experience how to orally communicate the most important points clearly and effectively
- Shadowing a senior medical writer and observing how projects are managed and problems are solved

Ongoing assessments should be based on bidirectional periodic feedback sessions wherein managers/senior writers provide feedback on the apprentice's progress (using competency-based evaluations) and apprentices provide feedback on the program's effectiveness.

The completion of the apprenticeship or promotion to the next level in the medical writing role hierarchy would be defined by the ability to autonomously drive the development of at least one document type (predefined by apprentice program guidelines or job descriptions) with independent de novo content development.

It can be said that it “takes a village” to train a medical writer because it requires input from several different types of trainers. Internal or external subject matter experts (at all levels) often develop and deliver formal training sessions. From there, senior medical writers are often leveraged as “buddies” to provide ongoing support, guidance, and mentoring. Being a mentor and “trainer” may require specific train-the-trainer training, so the need for this type of training should be considered in an apprentice program model. In addition, this extra responsibility should be included in the senior writer's job description.

## BEST PRACTICES FOR RECRUITMENT

Once the program has been designed and is ready to deploy, it's time to identify potential candidates for the program. The

recruitment process for potential medical writing candidates is a key consideration for the success of an apprentice program. As previously mentioned, an apprentice program can be an effective way to develop a pipeline of new medical writing talent, which is a win-win for both the company and the candidate having a long-term career path. The participants in this breakout group discussed several topics that should be considered in the selection process of the candidates.

**Process to start.** The first step for recruiting candidates for an apprentice program is a successful advertisement “campaign.” To that end, fostering relationships with academic institutions was seen as a particularly good option by the participants because this provides visibility into a large pool of potentially strong apprentice candidates. To do this, the interested companies can organize open sessions or webinars with graduates to explain the medical writing profession and the structure of the program they are offering. In addition to posting the job on the standard job search platforms, another potential strategy could be to leverage social media such as LinkedIn and include a brief questionnaire that allows the company to have an initial interaction with possible candidates.

**Defining the right profile.** Medical writing is not an academic discipline, and medical writing professionals come from many diverse backgrounds. The participants agreed that a background in the life sciences (either by training or work experience) is a good starting point for profiling prospective candidates (based on initial review of the CV and cover letter). In addition, other important skills would be a passion for communication and writing (a good cover letter and possible previous publications can be a good way to evaluate this), curious scientific spirit (that will support working in different therapeutic areas and documents), and social skills (to develop project management responsibilities).

**Selection process.** First, the breakout group considered that knowing how to effectively evaluate resumes, paying attention to the grammar style, formatting, and technical skills, was an important first step to start the selection process. If a cover letter accompanies the resume, a well-written one can demonstrate not only an aptitude for writing but an interest in obtaining the position. Once potential candidates are identified, one way to further screen a candidate is to administer a timed writing assessment before the interview. The participants believed this could be an effective way to evaluate a candidate's writing skills. However, this may not be allowed in some companies because of internal HR policies, so it may not always be feasible. If an assessment is used, it is important to ensure the same assessment is used

for all candidates and that a uniform, objective method to score the assessment is implemented. Finally, the participants agreed that the final pivotal piece of the selection process is a comprehensive interview to understand the full profile of each candidate and make an informed decision.

**Interview questions.** The participants discussed different interview questions that would be the most effective and meaningful to identify appropriate apprentice candidates. They agreed that a combination of role-specific questions, general questions related to personality and/or behavior, and questions around previous experience were good starting points for an interview. Some of the questions included:

- Why are you applying? Why this company? (Shows preparation and motivation for the role)
- What do you understand medical writing to be?
- Panel interview with behavioral questions (eg, tell us about challenges you have overcome and how)

**Title within the organization.** The breakout group considered the topic of possible job titles for an apprentice going through the program. Suggestions for a title included associate, fellow, or trainee. Although this can be defined in the framework of the program, the participants felt it could also be driven by or depend on the HR policies of the individual company.

**Possibility of developing multiple training tracks.** The breakout group also considered the possibility of having multiple training “tracks” within the apprentice program, for example, having an accelerated program (vs a standard duration or longer program) for people with advanced degrees or candidates with minimal writing experience compared with less experienced candidates.

The success of a medical writing apprentice program could depend on the quality of the candidates selected, so it is important to recruit, screen, and identify appropriate candidates.

## EVALUATION OF PROGRAM SUCCESS

The participants in this breakout group discussed the best way(s) to evaluate the success of an apprentice program. Put simply, if the purpose of an apprenticeship program is to develop a pipeline of new medical writing talent, the true measure of success of the program is the ability of the program graduates to function as fully fledged medical writers. Hence, the program administrator can track the trajectory of the graduates. Were they hired directly either into the company or, if not already part of the program’s plan or not feasible for those administering it, into medical writing jobs elsewhere in industry? A truly effective apprenticeship will

serve as the launchpad for a medical writing career. The expectation of the apprentice program is that well-trained graduates will be able to independently work on medical writing deliverables, with the expectation that as these new writers get more experience and exposure, documents of greater complexity and/or team situations with greater complexity will be manageable.

To assess a program’s success at the level of an individual apprentice, it’s critical to establish evaluators, create evaluation criteria, and estimate a timeline for program completion. Competency models, such as the DIA Competency Model, create a good starting point for goals’ conversations and well-defined expectations. In addition, at the program’s outset, the administrator and/or mentor should define the evaluation criteria and clearly communicate those with the intern. For example, if soft skills or other “intangibles” are particularly valued, those attributes should be detailed at the outset and evaluated throughout the program to provide feedback on the intern’s progression. At the completion of the apprenticeship, the level at which the company can expect the intern to perform will be contingent on the duration of the program and those prespecified goals of the apprentice and the mentor.

While the apprenticeship program is ongoing, effectiveness assessments to support continuous improvement (and adaptations, when needed) can ensure the program is working toward its goal. Alignment could be achieved by including feedback from multiple sources at multiple timepoints throughout the program. As this article has discussed, ongoing direct feedback to the apprentice from those interacting with the apprentice should be encouraged. In addition, the program administrator should seek feedback from team members on specific gaps they are observing. This could be as simple as providing additional training or expanding into other learning methods or even shifting into a different learning “track” if the program allows.

The apprenticeship program administrator should also plan specific intervals for seeking feedback from the apprentices about the program. Do they feel they are having the learning experiences and leadership opportunities that will allow them to fulfill a medical writing function upon completion? Where do they perceive gaps in their knowledge or opportunities to apply it? Do they feel the program prepared them for the next stages of their careers, and, if not, what was missing from the program?

As this paper has addressed the business case involved in creating and executing an apprentice program, this breakout group acknowledged that while apprentice programs enhance medical writing as a profession, they carry the inherent risk that a company could train someone only to have the graduate leave following completion of training.

This would have to be considered in the overall implementation of program and potentially mitigated with retention incentives, as discussed previously.

Overall, a robust apprentice program should include methods to evaluate the success of the program by defining specific criteria, identifying stakeholders who will provide feedback, and soliciting feedback from the apprentices throughout the program. A successful program provides adaptability and flexibility and ultimately results in an independent medical writer who demonstrates continued growth and development.

## CONCLUSIONS

After a productive session thoroughly exploring the topics and discussions described above, the Forum participants outlined what a medical writing apprentice program could look like. Over the next year, the AMWA Executives Advisory Council will leverage these initial discussions to build out a comprehensive AMWA Medical Writing Apprentice

Program framework. The goal is to provide an outline of the recommended content, structure, and duration of an apprentice program in addition to the skills and competencies achieved upon successful completion of the program. The final aim of establishing this framework is to assist companies that want to build their own program to develop the next generation of medical writers or benchmark their existing program against the industry standard.

## Acknowledgment

We thank all the Forum participants for their valuable contribution to this relevant topic in the medical writing field.

**Author declaration and disclosures:** *The authors note no commercial associations that may pose a conflict of interest in relation to this article. The opinions expressed in this article are the authors' own and are not necessarily shared by their employers or AMWA.*

**Author contact:** [marta.mas@fscro.com](mailto:marta.mas@fscro.com)

# AMWA LIVE WEBINARS

Tools, tips, and tricks  
for medical communicators.

Only  
**\$20**  
for  
Members

Can't attend a live webinar? You won't miss out! All registrations for live webinars include access to the recorded video in AMWA Online Learning.

[www.amwa.org/events](http://www.amwa.org/events)

