

Measuring the Impact of Medical Affairs

Part 4: Quantifying the Depth and Breadth of Targeted Scientific Education



Medical affairs teams are a primary force evolving clinical practice and leading scientific engagement with key stakeholders who shape the delivery of care.

Field medical teams, in particular, act as “scientific pioneers.” They cultivate close relationships with scientific experts and venture into uncharted territories to test the scientific narrative, assess its resonance, and gather critical feedback.

While customizing scientific exchange is vital for MSLs to remain relevant, many organizations lack the tools to systematically capture and aggregate insights — like content usage and feedback — from these personalized interactions.

Extracting these learnings, however, is essential for refining the overall scientific communication strategy and providing a tested narrative for broader launch preparation and ultimately positioning the MSL as a preferred, trusted scientific partner.

This paper, part of our series on [medical impact](#), focuses on best practices and metrics for targeted scientific education — to effectively disseminate data and close identified knowledge gaps.

We've brought together insights from biopharma leaders to share their best practices and learnings about this important concept.

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In addition to featuring the authors' experiences, the [Appendix](#) also provides resources to help you lead effective conversations and working sessions with your team.



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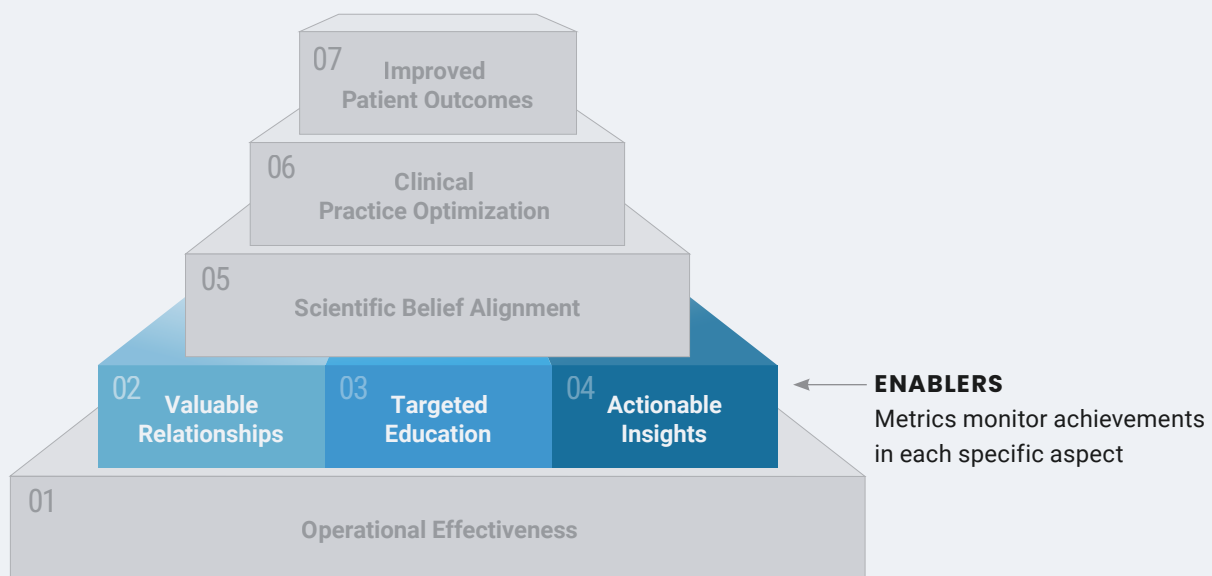
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Targeted Education

In our series of white papers, we have documented the three enablers of the [medical impact model](#). [Valuable relationships](#), targeted scientific education, and [actionable insights](#) are important for connecting with the right stakeholders, getting them the right information, and bringing their feedback back to the organization. The work of each enabler is essential, but their work together also supports the success of the remaining modules, those closer to patient outcomes.

The Medical Impact Model



Targeted scientific education, **the dissemination of scientific data and its translation into what it means for clinical practice**, is a core competency for medical affairs. Measuring the impact of this activity requires knowing if the shared information closed knowledge gaps and informed clinical care. These are important metrics especially since scientific communication and education is a collaborative effort across medical affairs — from HQ to the field.

Answering key questions can help measure the effectiveness of targeted scientific education:

- Are we disseminating information to the right stakeholders?
- Are we closing relevant knowledge and practice gaps?
- Are we leveraging channels effectively?
- What is our share of scientific voice?

MSLs: The scientific pioneers of biopharma

Research shows that medical affairs field teams, with their scientific background and deep knowledge of the evidence, are highly valued by key opinion leaders (KOLs).

94%

say scientific exchange between clinical experts and biopharma companies is becoming more important

86%

are satisfied or very satisfied with biopharma engagement

88%

say MSLs bring relevant information to meetings

KOLs want scientific exchange with knowledgeable people that are up to date on science.



KOLs see many benefits from interacting with MSLs. The most important being opportunities to work on trials, scientific exchange and dialogue, and access to relevant data and evidence.



Because of their deep scientific knowledge and training, MSLs can have more meaningful conversations with KOLs, providing relevant materials and information.

What is the most important benefit you can get from interacting with MSLs (in rank order)?

- 1** Access to research funds/clinical trial participation opportunities
- 2** Scientific dialogue with knowledgeable people
- 3** Access to relevant evidence (publications, posters, etc.)
- 4** Opportunities to exchange with peers (advisory boards, scientific meetings)
- 5** Access to relevant product information
- 6** Speaking opportunities
- 7** Invitation to congress, symposiums

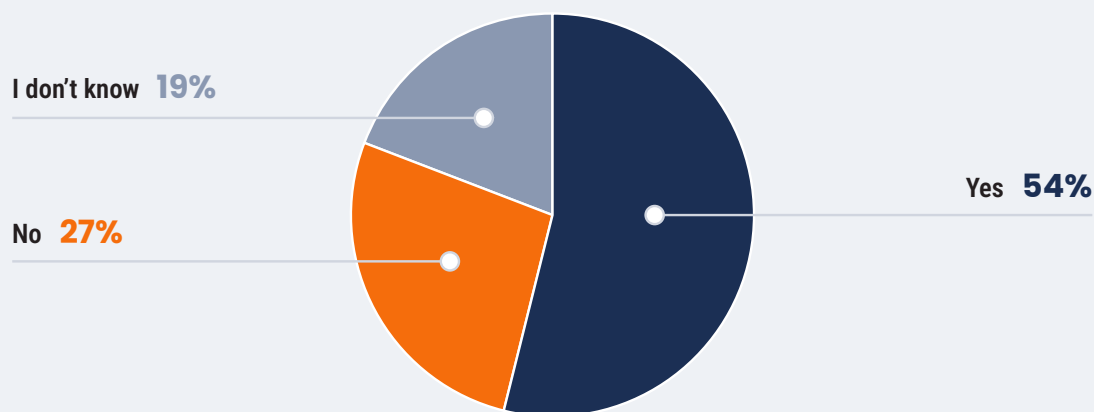
Which aspects are the three most important to you when interacting with MSLs?

- 1** Scientifically educated
- 2** Up to date regarding science
- 3** Help identifying opportunities for clinical research participation
- 4** Trustworthiness
- 5** Help with professional objectives
- 6** Easy to work with
- 7** Offer speaking opportunities

Findings also validate that KOLs want personalized interactions, especially when it comes to content. Eighty-one percent of KOLs say they want content customized to meet their needs and interests. However, 66% say they experience different levels of customization among companies.

While MSLs and their managers both agree that **it's important to customize interactions**, almost half cite they are not allowed to personalize content or don't know if this is even an option in their organization.

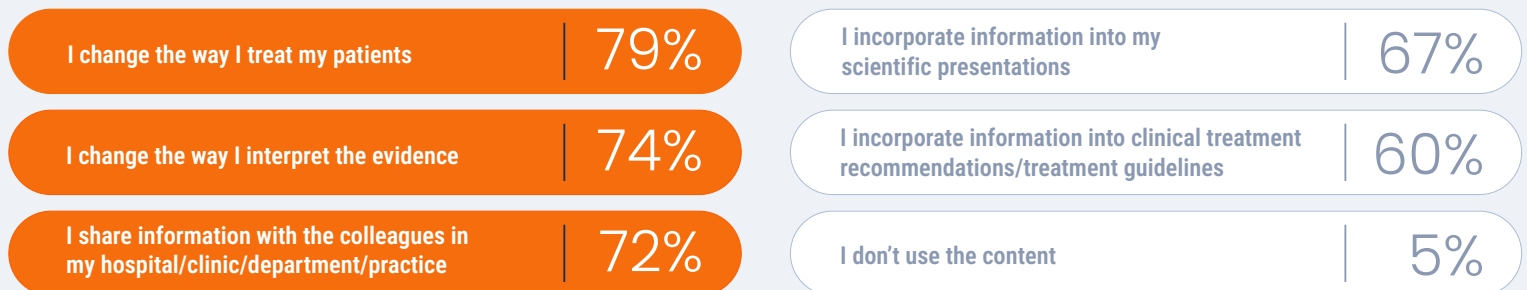
My company allows MSLs to personalize the content (in a compliant manner) that they use in KOL interactions.



However, content presented to KOLs often translates directly into action, so ensuring that it is relevant and meets their needs is critical.

The scientific content presented to KOLs often turns into action.

The scientific content presented/discussed in my interactions with MSLs leads to the following actions (please select all that apply):



The freedom to customize exchanges with KOLs allows MSLs to better understand the KOLs' specific informational needs and how they interpret scientific evidence. A structured system can track this customization by aggregating and analyzing the specific messages, content, and scientific materials shared with each KOL and assessing how well it resonated.

What is targeted scientific education?

"It's important to distinguish between scientific communication, which raises awareness, and education, which enables understanding."

Andreas Gerloff

Director, Medical Excellence Operations, Daiichi Sankyo Europe GmbH

Targeted scientific education, a core competency of medical affairs, is the dissemination of scientific data and evidence. It's made up of medical education and medical communications. Both work together through a structured, integrated process where communication provides the strategic mechanism for achieving the goal of education. While each is essential, they serve different objectives and have different compliance requirements.

Targeted scientific education

Medical education

Structured, evidence-based, non-promotional learning initiatives aimed at improving patient care

- Facilitates the transfer of knowledge through medical education offerings and scientific exchange (understanding).
- Objective is to educate to improve patient care.
- Can be proactive or reactive and is delivered through various methods [and channels].

Examples

Accredited or non-accredited industry-led education events, scientific symposia, educational websites, continuing medical education (CME), continuing professional development (CDP), company-led medical education, product specific training, patient education programs. (See the [Appendix](#) for detailed definitions).

Medical communications

Accurate dissemination of scientific data and publications for transparency and credibility

- Communicates scientific data and evidence across channels and cross-functional teams (awareness).
- Leads the scientific narrative.
- Typically "owned" by scientific communications group within medical affairs.

Examples

Key task is often publications planning, ensuring that the company's scientific evidence is publicized in peer-reviewed journals.

Also includes creation of field medical slide decks, medical information documents, etc.

The type of targeted scientific education is based on the various product lifecycle phases and what kind of education gaps need to be filled. Therefore there are many different formats, channels, and ways to consume it. And, all education programs are expected to be ethical, transparent, and supported by relevant, quality content.

Andreas Gerloff, director, medical excellence operations at Daiichi Sankyo Europe GmbH, comments, “When done well, external education instills new or different attitudes, helps align scientific belief, or changes behavior, thus optimizing clinical practice and ultimately improving patients outcomes.” However, to truly measure the impact of targeted scientific education, we must move beyond simply tracking stakeholder awareness and focus instead on how the education closes specific knowledge gaps and drives genuine application in practice.

Lundbeck’s Head of Medical Education, Annette Villumsen, states that medical education goes beyond knowledge sharing. Its real objective is to translate science into clinical practice. She compares the difficulty in moving from scientific communication to application, to climate change. “We know the facts, but until that knowledge is translated into behavioral action, its impact is limited.”

Who owns scientific education?

While scientific education is a collaborative effort across the organization, medical affairs, with its scientific expertise and focus on fair, balanced, and fact-based materials is uniquely positioned to lead these efforts. To create a coordinated strategy and scientific messaging, medical leaders must bring together global, regional, and local medical teams and align with market access and commercial functions. Ideally, scientific education, even across different channels, is integrated to provide a seamless experience for the “learner” and to ensure the resources across the customer journey are complementary instead of redundant.

Anne-Kristine Prag Steinitz, corporate vice president strategic scientific communication, global medical affairs at Novo Nordisk, says she and her team own medical education and manage congresses. They work jointly with commercial teams on attendance, but medical affairs takes the lead when it comes to strategy and messaging. “We are very independent, but we make sure we all agree on the overall strategic position for the given compound and ensure there is alignment.”

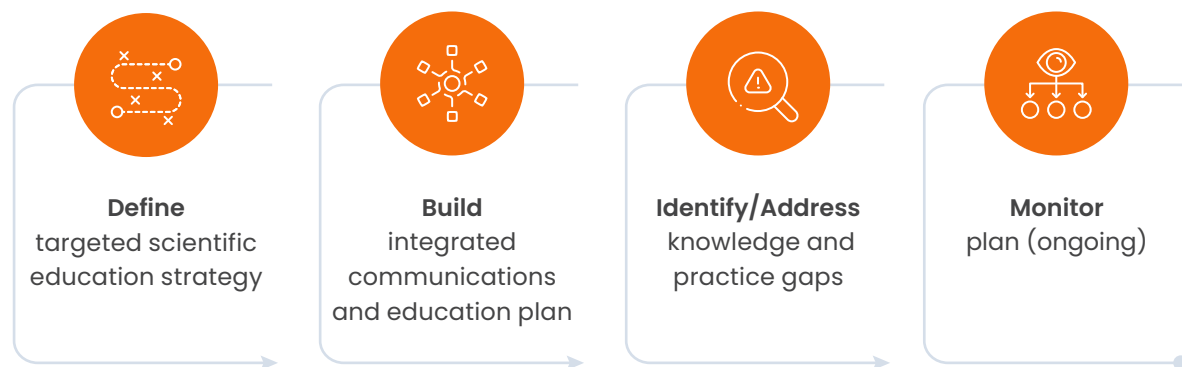
Getting the strategy right for your medical education objectives is important, but measuring the effectiveness of education gives it greater value. This will be addressed later in the white paper.

Targeted Scientific Education: Steps for Success

An essential part of the MSL's role in targeted scientific education is to learn where there are gaps in knowledge and practice. Bringing this back to the organization allows teams to address any gaps and continuously improve the plan, especially when it's time for wider communication in medical or commercial.

Although identifying and addressing knowledge and practice gaps is important, it is one of four main steps in an education plan:

Let's take a closer look at each component and successful approaches from the industry.



Define the targeted scientific education strategy

The first step is to carefully plan the product- or indication-specific scientific education strategy, or align with it, starting with the ultimate objective for the organization. This might be improving patient outcomes in a specific disease area by reducing hospital admissions or changing clinical practice so the right patients receive the right therapy at the right time. Or, perhaps, it's increasing the diagnostic rate in a rare condition.

This ultimate objective is what you should have in mind when planning the education strategy.

Set the strategy

To set your strategy, it's helpful to work backward from the ultimate objective. By working backward, you can figure out when and what needs to be done to accomplish the desired behavior change to achieve the objective. For example, which key stakeholders need to “do” or “believe” what — and at which point in time — and what they need to “know” for that to happen. This will guide whom you share information with and when.

NEEDS ASSESSMENTS

The Medical Affairs Professional Society (MAPS) recommends doing a needs assessment for each therapeutic area annually. This helps identify educational needs that underline a professional practice gap and whether the gap is due to a lack of knowledge. These assessments are a good way to understand the level of ability, interest, and attitude to establish the foundation for educational planning. They are often based on educational gap analysis, insights, and data from previous programs and highlight educational areas within content, formats, and audiences. These assessments may also address topics around unmet needs, learning gaps, and educational objectives and formats.

Source: Medical Affairs Professional Society (MAPS) Standards & Guidance for External Education, Best Practices for Medical Affairs, 2024.

Identify the target audience

The target audience for your education plan depends on the circumstances. If it's early before launch, you may choose to focus your efforts on individuals who are informing guidelines. Or, if you are in the launch phase, you might focus on educating physicians who are treating many patients.

The overall strategy also depends on what you are trying to achieve and the lifecycle of the brand. "Typically, it's the KOLs that we address with medical communication and education," says Gerloff. "However, if it adds value, we may need to broaden the target audience." He shares that disease awareness might be targeted toward HCPs. Within mature products, the team might decide that KOLs are already well informed so they will want to expand and get broader support.

Early on, it's essential to focus on your key external experts because they understand the therapeutic area and they'll be best able to articulate it. But as the product progresses along its lifecycle, the focus most likely will have a local lens since the patient journey is very unique to those local environments.

Being in the field or headquarters also dictates who you target and the channels you use to communicate. "Our target audience is the KOLs within the therapeutic areas (TAs) within which we work," says Prag Steinitz. "For the HQ function, the target audience changes to more personalized interactions with global KOLs." Her team also executes mass communication through digital channels — a broader effort that includes all the specialists within a given TA or geography.

Key factors for defining medical education audience



Audience varies by lifecycle stage

- Early/pre-launch: KOLs, guideline influencers
- Mature products: Broader HCPs, wider support



Audience is defined by the problem

- Patient journey: Diagnostic → GPs, treatment → specialists
- Educational gap: Knowledge, skills, experience



Strategy dictates scope

- Global/HQ: Global KOLs, personalized
- Field/local: Local lens, unique patient journey
- Mass communication: Digital, all specialists in TA/geography



KOLs as contributors, not always primary targets

- Highly knowledgeable, program designers
- Target based on stakeholders and patient journey needs

Villumsen uses the patient journey to define the pain points and map the involved stakeholders. “If there is a diagnostic problem, you want to target general practitioners,” she shares. “Or, if it’s a treatment delivery challenge, the target is the treating physician.”

She explains that’s one of the big misunderstandings in medical education. “KOLs are usually more knowledgeable than anyone else and while they should be part of designing your programs, once you have a deeper understanding of the patient journey, then you can use that and target the right people.” She recommends first identifying key inflection points in the patient journey, then map the target audience involved to solve it. Then determine how you are going to provide the knowledge, skills, and experience that these stakeholders need to unlock the health challenges they are facing.

Decide who is responsible for educating HCPs

What is of interest to a KOL today, will most likely be of interest to a general healthcare provider in 6 to 12 months. Listening closely to the conversations that MSLs are having with KOLs can inform your broader scientific communication strategy months down the line. This can give you the opportunity to anticipate and plan ahead.

While medical teams focus their activities mostly on KOLs and commercial field teams address the prescribers, sometimes the lines can be blurry. To prevent overlap like outreach duplication or non-aligned messages, Prag Steinitz says it's important that medical owns the overall scientific messaging. "We start 12 to 24 months before launch and then commercial steps in. Medical also takes responsibility for HCP education through digital channels," she says. "We know what is needed and can ensure it is fair and balanced." With bigger affiliates, medical affairs owns all physical interactions with KOLs, while digital channels to broader HCP audiences are mainly owned by the commercial function. "We want this to evolve and we want to work together more," she shares. "The HCPs should get a coherent experience across physical meetings and digital channels."

Use stakeholder education journey mapping and adoption ladders

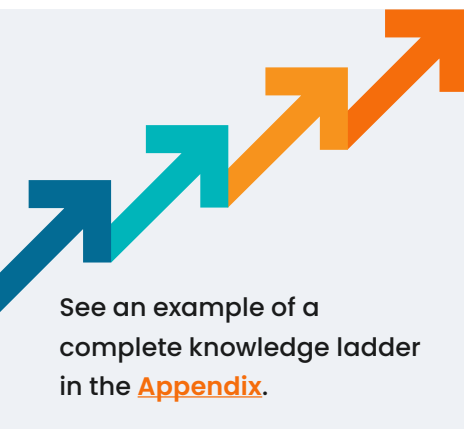
After determining the target audience, organizations then apply education journeys or knowledge ladders. These journey maps help to plan who needs to be at which level and when, and what is the most efficient way to achieve this.

The maps also help you understand the ideal knowledge journey and later identify and close educational gaps. This exercise must be tied directly to the overall scientific/medical strategy and integrated with the communications strategy. Truly understanding how and when the customer consumes content ensures each interaction builds upon the last.

Villumsen's ideal scenario is having well-designed learning journeys. "Over time you address different knowledge skills and behavioral gaps with a mix of company-led medical education and externally-led medical education with an ultimate goal of changing behavior," she says. "It's not either or, but a combination over time."

Organizations should be careful not to mix aspects of the different categories like knowledge, interpretation, and behavior into the customer journey or customer ladder. Mixing these aspects and metrics together can make it more difficult to identify the root cause of a challenge.

Multiple factors may prevent you from achieving your educational objective with the target audience. You could simply be educating the wrong people, using the wrong channel, or not being clear or relevant enough.



Keeping a customer learning journey and tracking accordingly brings clarity on what is going on and where to course correct. But tracking educational ladders is not easy.

MSLs at Prag Steinitz's organization put this information into their CRM. "It is a work in progress to ensure it's done systematically and in an aligned manner," she says. "The goal is to collect all the data globally and then later, methodically assess the gaps."

However, there can be issues with these processes across medical teams. For example, a medical executive at headquarters may not have access to a CRM system. If they have a conversation with a global KOL, and there is a different interpretation of evidence for that KOL, how would they capture that insight into a system to let others know?

"In the past, ownership of global KOLs was dispersed," says Prag Steinitz. "But, we're moving toward shifting the responsibility for the top 50 KOLs to the global HQ level and coordinating all the interactions with these leaders centrally." Increasingly, medical teams are moving to this model because it provides a more streamlined approach and delivers a better customer experience.



Build an integrated medical communications and education plan

Now that you now know which stakeholders you need to communicate with and at what level, this information goes into designing an integrated medical communications and education plan. This plan encompasses **what** you are going to tell these stakeholders and **how** you are going to get that done most efficiently.

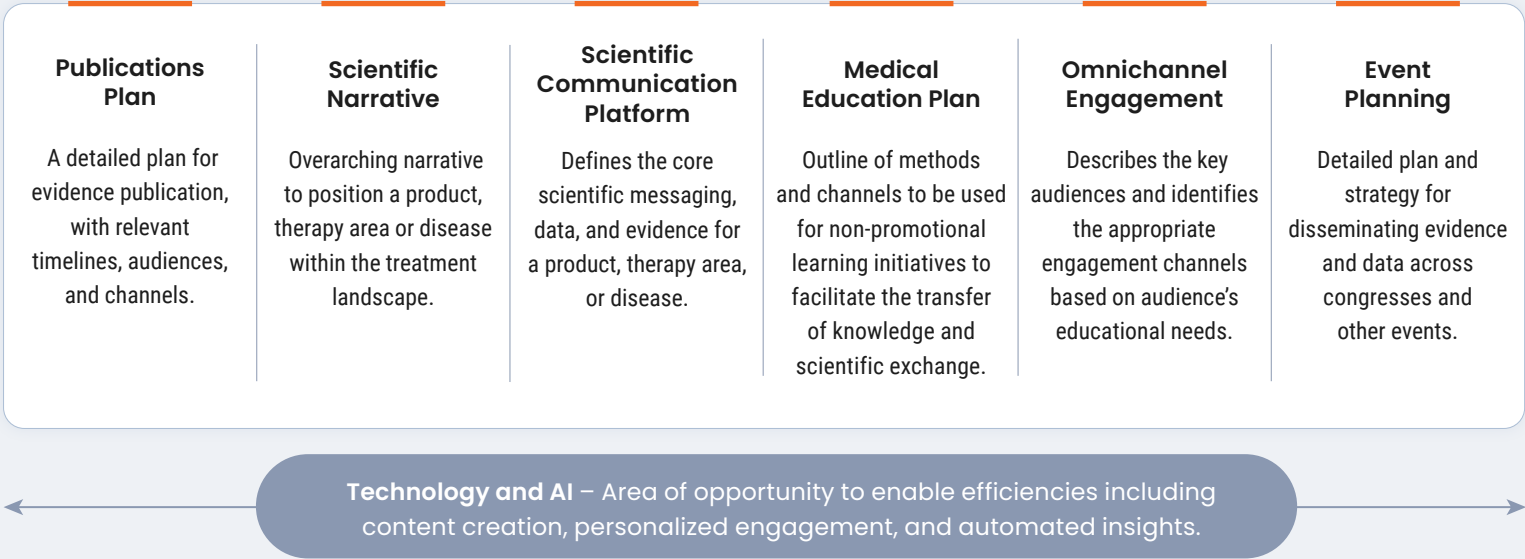
This involves synthesizing customer insights from cross-functional teams and translating them into compelling scientific communication or education initiatives. You can then adapt these initiatives and align them with stakeholder requirements and content preferences.

To determine the "what" you need to create the scientific narrative. This lives in the scientific communication platform (SCP) along with the supporting scientific messaging, evidence, and data. Once the scientific narrative is finalized, you'll build a publications plan and also decide what other types of content you'll want to create and also identify distribution channels. Finally, you'll plan "how" you will use this content as part of your external and company-led medical education efforts. It's during these initiatives that you can identify any gaps in knowledge and refine your plan as necessary.

A closer look at the components of an integrated medical communications and scientific education plan

Integrated Medical Communications and Scientific Education Plan

Leverages the needs assessment, target audience identification, and journey mapping to determine communications plan and align with the overall medical strategy.



Insights are the foundation of content creation and communications planning. This includes understanding both HCP needs and their preferences for receiving content.

Some stakeholders prefer podcasts or infographics, while others like interacting face-to-face or going to a symposium. These preferences also help you better target educational activities and deliver personalized content across channels.

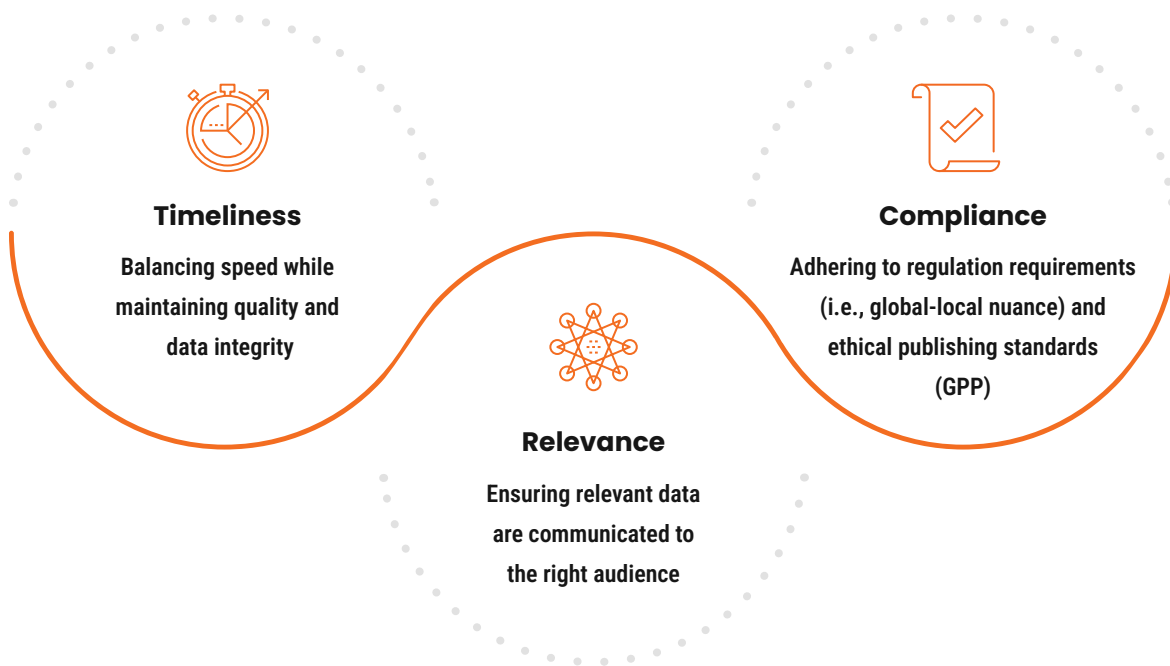
Publications planning

Publications are the key source for your medical communications plan. They need to be planned well ahead of time to best serve your educational needs and, hence, are a critical part of the overall scientific communications strategy.

New scientific findings are shared with the broader community via publications. Often, they are subject to a peer-review process where research is evaluated for its scientific merit, validity, and originality. These publications include journal articles, conference abstracts,

posters, and presentations. All medical publications must adhere to [Good Publications Practice \(GPP\) guidelines](#) for sponsored medical research.

Publications are an educational blueprint for a product. They are the foundation of data communication and are critical to establishing evidence-based value of a product in the context of existing medical literature and clinical practice. They are managed with comprehensive publication plans that involve strategic and tactical components to ensure timely data to an appropriate target audience. A well-executed plan ensures:



Despite the vast advancements in digital communications, peer-reviewed journals are still the foundation of any medical communication strategy. In such a regulated industry, all critical data dissemination efforts must be supported by foundational peer-reviewed references.

Scientific narrative

The scientific narrative is the overarching story of a therapy, disease area, or scientific concept and a critical part of your communications plan. It explains the science, why it matters, and what its implications are for patients, the pathway, and the healthcare ecosystem. It creates a shared understanding of the scientific information and puts complex data into context and makes it memorable, relevant, and actionable.

Scientific communication platform

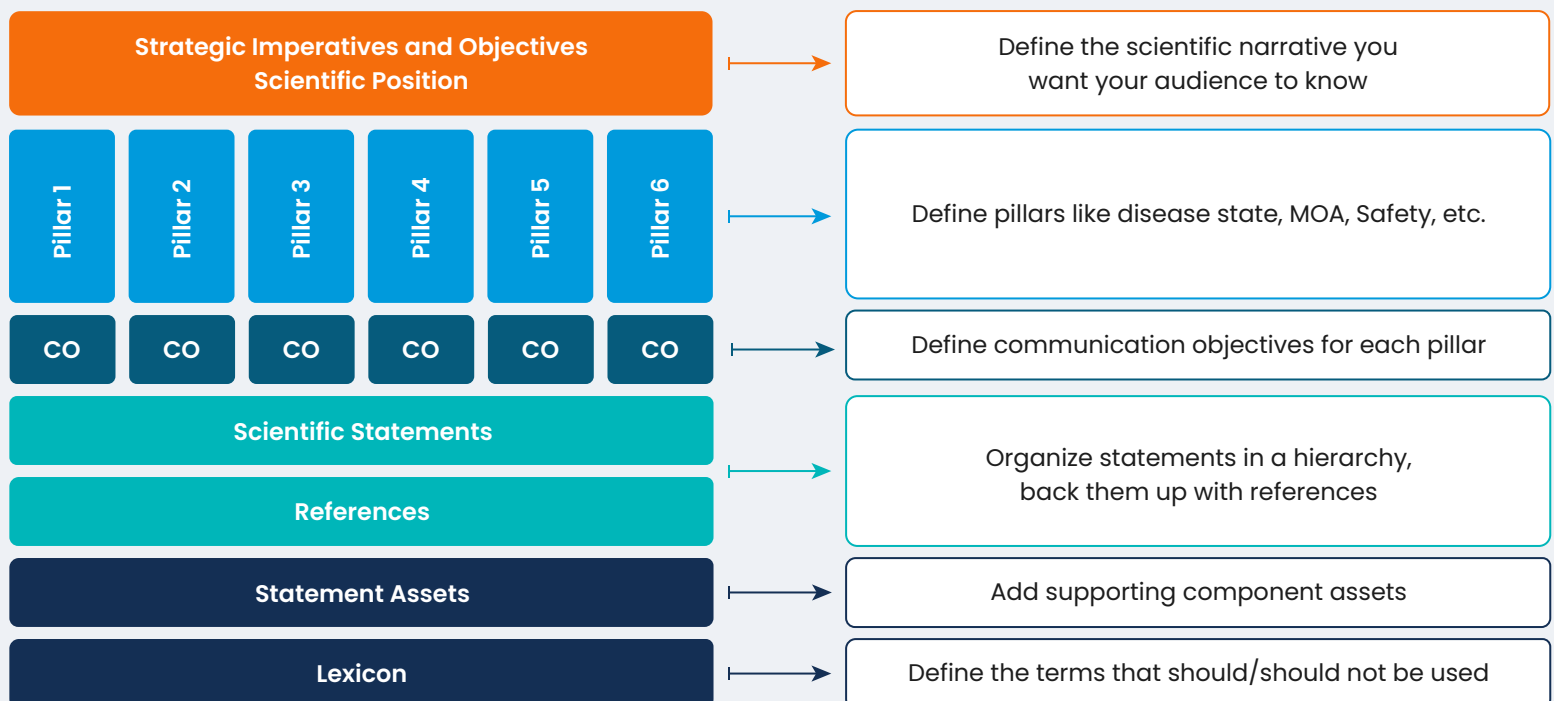
The scientific communication platform (SCP) serves as the central, single source of truth for all medical communication activities. It is an organized collection of:

- Scientific statements
- Data
- Evidence
- Communication objectives
- Strategic considerations

The SCP not only houses the core scientific narratives and substantiating references but also drives crucial internal alignment, ensuring accuracy and consistency in all external data communications.

A scientific communication platform (SCP) is a framework that formulates and houses the scientific narrative and all its supporting elements.

Scientific Communication Platform Messaging Hierarchy



SCPs are inherently modular, and when digitized, become a set of reusable components for creating content with consistent language and referencing. A digitized SCP also provides visibility into how and where messages are being used externally so those insights can inform future activities. You can find an example of a digitized SCP in the [Appendix](#).

SCIENTIFIC NARRATIVE VERSUS SCIENTIFIC COMMUNICATION PLATFORM

The **scientific narrative** is the plot of the book, whereas the **scientific communication platform** is the detailed outline and style guide of the book.

Digitizing your SCP plays a key role in aligning scientific messages with strategic organizational goals and can drive measurable outcomes. By integrating scientific narratives with broader communication strategies, your content becomes a vehicle for optimizing scientific exchange and stakeholder engagement. In turn, medical affairs can demonstrate the tangible value of its scientific communications and gather insights into narrative reach, sentiment, and impact.

The SCP should serve as the foundation of the overall scientific communication strategy across functions (medical, access, and commercial), channels, and materials. When used in the right way, it ensures full alignment on the scientific positions and the messages.

With a digitized SCP, teams can automatically tag materials with the core communication objectives and the scientific statements at the slide, graphic, or text-block level so they can track and trace messages and their utilization. Companies can use this data to continuously refine communication plans and content.

The **integrated medical communications plan** plays an important role in aligning medical communications with the overarching strategy and ensuring a consistent and cohesive scientific narrative. Some confuse it with the SCP, but they are not interchangeable.

The **journey or knowledge ladder** focuses on the KOL/HCP and optimizes their interaction with a brand or treatment area to evolve their knowledge and understanding. It works in concert with the SCP, but they can have different objectives.

Modular content

"I strongly believe that we cannot make one size that fits all since the markets are very different."

Andreas Gerloff

Director, Medical Excellence Operations, Daiichi Sankyo Europe, GmbH

Knowledge gaps drive what content is created. Many organizations rely on **modular content** to adapt to customer preferences because you can break existing content into smaller pieces and combine it into final materials.

It is important to differentiate modular content on the medical side from the commercial side. Modularity on the medical side is at the slide or even graph level versus the "blocks" of content that commercial uses across various types of materials.

With medical modular content, here are important things to consider:

- Who is producing the content that is used in medical education and field interactions? (Is it global to local?)
- How granular are the modules?
- Can MSLs select which individual modules/slides they share?

In talking with our experts, the industry seems to be approaching modular content in two different ways:

- 01.** Disseminating global decks and mandating that MSLs use most/all the slides with no changes.
- 02.** Allowing MSLs to customize their own deck from the global deck.

"Materials are produced at the regional or global headquarter level, but they are usually localized," says Gerloff. "Compliance-wise, what you're allowed to do and not allowed to do is different. So, we try to 'set it free.'"

He refers to these content pieces as different building blocks. They are created at the global level and then countries can "build the house" for themselves. "The MSLs must use the core story and can't change our key position statements," he adds.

Many medical teams use similar global to local approaches to deliver content at scale. This ensures that product information, like efficacy and safety, is the same no matter where a physician sits. However, some aspects can vary by locale based on factors like the patient journey or treatment landscape. Therefore, some teams may use a global slide deck where affiliates can add region-specific content around topics that might include reimbursements, decision-making, and patient flow.

Omnichannel engagement



For more information on transforming medical content for omnichannel success read our [eBook](#).

As mentioned earlier, KOLs expect personalization from the medical teams with whom they interact. With omnichannel engagement strategies in place, medical teams can deliver the right message to each stakeholder through their preferred avenue. They can orchestrate all channels to provide personalized communications tailored to specific decision points and stakeholder educational needs. To deliver truly personalized content at the right time, the full HCP journey — along with the type and amount of content for each stage — needs to be taken into account.

In addition to evaluating the audience's needs, also consider if the content lends itself to modules that can be digitally deployed with speed. Medical content should be the KOL's trusted source of scientific information on the therapy. The team should review the content strategy regularly and update it based on learnings to address any gaps.

New technology to digitize communications plans

Most communications plans were previously created using slide decks or large monolithic documents, siloed from the communications process. Now, automation technology can create, document, and share the communication plan easily.

Modern publication planning software, for example, manages the end-to-end publication process, controlling everything from audience selection and manuscript drafting through submission, so that all scientific literature meets journal requirements and industry regulations.

A digital SCP solution together with a modern CRM system allows you to plan and manage your scientific narrative and all its details and generate “smart” content that when deployed to the field captures utilization at the statement level.

These tools streamline the content creation process, helping the core information remain accurate and consistent no matter who the audience is. Ideally, commercial content should also align with the same narrative frameworks and communication objectives, forming the basis of claims used in promotional materials.

Connected systems that include SCPs, publications planning, and content distribution all in one place can help streamline these processes and allow teams to work more efficiently and cohesively.

The role of AI in targeted education

The digitization of communications plans and implementation of connected systems opens up opportunities for AI in targeted education. For example, with modular content and content personalization, AI-powered applications could tailor and create content based on a KOL's profile. It could also help direct how and when that content is delivered – including channels and formats – based on the KOL's preferences. The digitized, structured narrative (integrated communication plan and SCP) becomes the guidelines and business rules for AI-generated or AI-supported content.

AI can also support continuous engagement by making recommendations on next best actions for MSLs, including prioritizing follow-up activities and timing. However, for AI to deliver the best results, it ideally requires a single platform that handles data, content, and specific AI agents. In addition, the process calls for a review of historic workflow processes and necessary change management.



Identifying and addressing knowledge and practice gaps

Once you put your communications plan into action, identifying knowledge gaps will help you revise and improve the plan over time. Don't assume HCPs understand new or even pre-existing information. The symptoms of a knowledge gap can, however, be very unspecific. HCPs rarely state directly that they are missing information or have not understood something, so you must be able to read between the lines.

Determining the deficiency

You may notice that something might be amiss during your engagement with a KOL or HCP. The questions they ask, a reaction to something you say, or even their level of interest might signal they are not on the same page. Whatever it is, take note, and continue to be aware of similar signs during conversations with other stakeholders.

This holds true for the individual, but also for subgroups or your full target audience. Leveraging your medical insights process to capture and surface these signals quickly, becomes critical.

Identifying knowledge gaps

Identifying the disparity between what is known/understood and what should be — the gap — is a key activity in medical communications planning. The knowledge and practice gaps identified through sources like field medical insights directly inform and serve as the basis for communication objectives in the medical affairs strategy.

Villumsen believes analyzing knowledge and practice gaps should include many sources. “It can come from MSL insights or sales reps. It can be more quantitative, like surveys, or more qualitative, like from ad boards,” she says. “But it needs to be multi-sourced.”

She recommends using continuous and dynamic needs assessments to understand explicit and implicit needs. “If you have a program already, you will see the implicit needs and some metrics on how they are consuming your digital programs. For example, you may have quizzes or questionnaires asking them about their experience. Then outside these internal programs, you can do surveys and ad boards.”

It’s important to note that while many start with knowledge gaps, not every gap will require a medical education tactic. It might be something different, like a data generation gap. The initial data dissemination, through congresses, publications, and other channels is the first necessary step, but without any new data, you don’t really have any education. Then the remaining step is determining what you do to enhance understanding.

Educational or knowledge gaps can vary based on product lifecycle. If you’re early on in the lifecycle, then the educational gap is all about understanding unmet medical needs in the disease state. You might ask questions like, “Where are the opportunities?” and “What are the limitations with current therapies?” As the product matures and is used in practice, the gaps might focus on managing side effects, ensuring persistence, improving medication adherence, or selecting the right product for the right patient. No matter where your product lies in its lifecycle, it all goes back to that first step of identifying educational gaps.

Insights: A key source for identifying gaps

“Assessing knowledge gaps in our target audience is a skill that medical affairs needs to better develop,” says Gerloff. “We need to listen much more and extract insights to help us identify those key knowledge gaps.”

A common way to collect insights is through peer-to-peer interactions, using these engagements strategically to identify and understand educational needs. This could be an advisory board, IME event, or something else. “Even if we are not actively participating in the event, it’s important for us to listen and understand what those education gaps are,” Gerloff says. “And there are more and more examples of these unique opportunities that can help identify these knowledge gaps.”

For example, MSLs sometimes facilitate multidisciplinary learning sessions with HCPs in hospitals.

Even interactions with medical websites can uncover educational needs. “In one country, we had a very experienced expert ask us how to teach his young doctors how to read a scientific publication. Our goal is to participate and support peer-to-peer interactions across key areas to clearly identify educational needs and build an ecosystem for extracting and addressing those insights.”

As discussed in our [previous white paper](#), most organizations have insights processes and metrics in place, but as technology progresses, the possibilities for capturing and analyzing insights are rapidly evolving.

“Insights collection is something we try to do in a very robust way,” says Niki Georgiou, PhD, stakeholder engagement head, global medical affairs at Boehringer-Ingelheim International GmbH.

While many firms are still developing thorough insights processes, most can identify and act on bigger initiatives where insights may surface easier. For example, take an organization that has a drug that needs a certain diagnoses done in a routine way. If they identify it’s not being done accordingly, that’s a massive insight they can act on.

In instances like this, MSLs have a good understanding of clinical practice through discussions they are having locally with hospitals. This allows them to get these important insights, record their interactions, and extract the larger themes.

Most agree on the importance of insights when determining education plans, from the content created and the formats it takes, to the education plans overall. However, without a platform that allows you to capture insights and run analytics, that real-time feedback is meaningless.

**“Treating”
the deficiency
effectively**

Since communication objectives directly support the strategic medical affairs plan, they may need to be updated based on the gap analysis that pinpointed knowledge deficits. For example, a poor understanding of a new mechanism of action might result in creating specific strategies around educating relevant audiences on that mechanism.

As Prag Steinitz points out, “Closing educational gaps is our goal. It’s not to convince them toward a commercial goal but to close the scientific knowledge gap.” At her organization this is making sure the KOLs know enough and have the right data — that is scientific, fair, and balanced — to be able to make the right decisions.

Many teams also incorporate educational gap analysis as part of the annual planning process. This is the time when many medical education activities are identified.

There are also different sources that bring educational gaps to light, like feedback from an advisory board or congress discussion. Therefore, improving data and analytics capabilities can help directly with gap analysis. Getting those educational gaps right and ensuring they are aligned to business priorities helps with targeted education activity and demonstrating benefits.



Monitor your plan: An ongoing process

Medical affairs teams are responsible for the continuous execution of their long-term education plan and for evaluating whether those interventions successfully advanced their strategic goals.

Traditional metrics often just measure distribution, telling us if a message was received, but not the impact it created. To gauge the effectiveness of our communication strategies, we need to move beyond simple reach and focus on outcome metrics. For example, move beyond how many physicians attended or liked a session and focus on measuring knowledge prior to and after the event.

“Today it is mainly operational measures like the number of attendees and the number of digital interactions around the conference,” says Prag Steinitz. “Sometimes we ask participants to evaluate the event including if they’ve changed their opinion or would change practice, but we don’t systematically do it.”

As Georgiou shares, “I think where we can do better is defining the ‘why.’ Why are we measuring something or why should we not measure something? If we give our end users, the MSLs, the why, we are working on a sustainable change.”

Are we closing knowledge gaps?

The goal of external education is to close knowledge gaps and move the “learner” from awareness to knowledge to understanding, ideally resulting in improved patient care. Therefore, the optimal metrics to assess the impact of education quantify **the changes** in knowledge and understanding. Despite advancements in technology, capturing the true impact of communication activities remains a significant challenge.

Some find it helpful to measure in reverse. Using this approach, you might ask questions like, “What’s the value lost if you are not closing the knowledge gap? How many patients will not get the right treatment if

the education gap persists?”

Villumsen uses closing educational gaps as a metric, which is based on the scaling. “You have a baseline with an expressed need and knowledge gap and then you run programs over time,” she says. “You can measure if you’ve actually moved the needle, both explicitly and implicitly.”

Prag Steinitz categorizes interactions to assess movement along the educational ladder. “It is not very systematic right now and varies across therapy areas,” she says. “In principle we try to gain a qualitative assessment of where the HCP/KOL is based on interactions and place them in categories.” However, she notes the key challenge is that there is an incentive to put them low at the beginning of the year. “A lot depends on the incentive structure that you create around measurement.”

When discussing the measurements of closing knowledge gaps, two methods are frequently mentioned:

01. Surveying HCPs/KOLs

Many organizations rely on surveying learners during different points in the education journey. Technology has made this easier. For example, you might share a QR code and ask a question at the beginning of a session. At the end of the session, you ask the same question and then measure the change in knowledge. While it’s not a perfect approach, it can provide some insight.

Georgiou’s team also uses structured scientific surveys as a way to gather insights and stay relevant. However, timing can be a challenge especially when it comes to how often they administer surveys and how often they see a switch. “We are trying to look at this in a more structured way like behavioral change,” she says. “This could include subjective scoring that the MSL does when they think they were able to educate the KOL. I think we need to complement this with objective ways of measuring.”

02. Using MSL assessments

Another method involves asking MSLs to assess their KOLs’ knowledge level. Gerloff explains how this approach could be applied within or outside the CRM system. “Each stakeholder’s position on the ladder is assessed by the MSL and documented accordingly. The individual scores are then validated by a cross-functional team to ensure that more than one perspective contributes to — or at least reviews — the assessment.”

Many organizations link structured scientific surveys to their scientific objectives. These surveys might ask questions like, “How many patients are you diagnosing?” or “Do you think this condition is important in this disease?” or “Do you test for this or that?”

He notes when using MSL assessments, that it's important to try to reduce bias. "If the MSL perceives this as a performance evaluation tool," he says, "it will most probably not capture reality."

Content utilization metrics

To capture the utilization of different pieces of medical content, organizations are working towards a systematic approach and tools that track which content MSLs shared with their stakeholders. These findings can then inform content creation and communication strategies.

"Slide decks are still the most common format used within medical," notes Gerloff. "However, if you are able to share content through other channels, such as CLM and similar platforms, you can develop metrics to inform more efficient and effective content creation — and gain insights into how to evolve the overall scientific communication strategy." He emphasizes that ensuring the tool supports the user is key: "If there are limitations on how MSLs want to use it, there will be pushback."

Georgiou's team is also reexamining how they gain utilization metrics. "We continuously look at ways to make our content modular and tagged in CLM."

WHAT IS CLM?

CLM stands for "closed loop marketing" or is often referred to in medical as "closed loop medical." With its media player and content library, CLM allows field medical teams to find, present, and share digital content (e.g., slide decks, visual aids, videos) on devices like iPads or laptops during face-to-face or virtual meetings with HCPs. As the content is presented through CLM, metrics are captured in real time (which slides were shown, how long was spent on each slide, what was the feedback from the HCP on the slide), giving teams valuable insights into what content is most effective.

"CLM and Gen AI solutions can help us to be more clever in the way we personalize our content," emphasizes Georgiou. "We need to embrace it more and work towards it."

"Refer to the [Appendix](#) for examples of content utilization metrics.

Other value metrics

Teams need to understand the value of the activities they are doing to fill the educational gap, but some feel that the metrics they see are not very meaningful. Today, most report on what they are doing and whether it was delivered on time and in budget. A few might do impact assessments where they ask if the education is helpful or if stakeholders found the session informative. While it's a good starting point, there are more outcomes to focus on.

Prag Steinitz comments, "Right now, there are two different questions, my evaluation of the value versus are we able to show it." There is broad acknowledgment in her company that measuring impact is key, especially when moving into new therapy areas.

"It is impossible to invest in success without having these early interactions with the market, not only to give input into our pipeline but also to prepare and educate the market on what we are bringing," she says. "Everyone knows it is important, but are we able to show it in a data-driven way? I haven't seen anyone with the golden solution."

Georgiou brings up the idea of measuring based on guidelines. "If something worked, and was of value, you would expect it to end up in guidelines. That's the value that you want to extract from all this education or scientific exchange with KOLs." Another important impact metric for her is evaluating whether the experts they are engaging with are up-to-date on the latest data. "It's important to many of them, so we can enhance the relationship building if we provide the latest data to a specific stakeholder," she says.

When it comes to knowledge metrics, some organizations emphasize scientific share of voice. They do this by first analyzing pre-launch data derived from company conversations about a specific asset. They then use that information to later measure its link to treatment adoption after the product launches. While the correlation is indirect, the more effectively you disseminate your data, the higher your share of scientific voice and the higher the treatment adoption.

WHAT IS SCIENTIFIC SHARE OF VOICE?

Scientific share of voice is a metric that measures a company's visibility and influence within the medical and scientific community relative to its competitors. For example, the percentage of total relevant scientific communication (such as publications, conference presentations, and expert discussions) in which the company's data, research, or scientific narrative is featured. It essentially quantifies how much of the scientific conversation around a therapeutic area or disease state is driven by the company's medical affairs efforts.

Villumsen has been looking at impact in new and different ways. “We talked about changing behavior in clinical practice and demonstrating that there is also value in this for the whole organization.” She notes that medical education is driven by science and not product. “Disease state medical education serves a dual purpose, fulfilling corporate objectives while meeting social responsibility goals by providing independent medical education that delivers value to society.”

“Metrics also depend on who your internal stakeholders are,” says Villumsen. “If you want to show commercial value it can become difficult because of compliance guardrails. But I think it’s interesting to look at business and market development – growing the pie for everyone in a fair and balanced way and ensuring access to the therapy and building healthcare system resilience through amongst others, medical education.”

She believes the value comes from showing a the whole organization how important medical education is for market development.

“That’s where you get closer to the nexus because it’s not only about looking at your prescribers and how we move a prescriber from low to high. You want to ensure that there is a pool of knowledgeable and skilled HCPs that have a deep understanding of the disease and therapeutic area.”

A good mix of both quantitative measures like numbers of attendees or post-congress interactions, share of scientific voice, and qualitative measures like event feedback or other observations, can help you better understand the impact you are making with your educational activities.

Correlating these measures with true outcomes, changing the interpretation of evidence, optimizing clinical practice, or even patient outcomes is the most difficult but also the most relevant perspective.

See examples of these metrics in the [Appendix](#).

Here's an example of how medical affairs teams can use the right operational metrics to make the right choices.

**Objective**

Increase diagnosis rate of new biomarker, a prerequisite for patients starting therapy on the company's new treatment.

**Stakeholders**

Both "clinical" KOLs and HCPs along with hospital pharmacists and clinical laboratory experts needed to be supportive of this change in clinical practice.

**Information to be conveyed**

Features of the test and the value of the specific therapy.

**Operational metrics** (based on high level objectives, for example)

- Key information items delivered to target
- Share of targets addressed
- Feedback on content

**Impact**

These metrics were also used for assessing which activities had the largest impact and where to prioritize.

Conclusion

As we've discussed, the field medical team as "scientific pioneers" is critical to testing the scientific narrative and gathering feedback. When this feedback is brought back to the organization, it can help refine the narrative that then provides the scientific path for the entire organization.

However, when it comes to automatically capturing and analyzing the experiences of MSLs and other information about educational gaps, most organizations struggle. Let's look at the key components organizations should keep in mind in order to be successful when it comes to targeted education.

01. An effective scientific education plan encompasses four key steps.

Teams create a strategic plan (01) and build an integrated communications program (02) to help them achieve their objectives. Identifying and addressing knowledge gaps (03) and ongoing monitoring (04) of these gaps once the plan is in flight ensures the plan is performing at it's best to continue to meet objectives.

02. Efficient publications are the foundation of good education.

A well-managed and efficient process for handling publications is a key first step toward creating effective educational materials.

03. Tools are important for capturing and analyzing feedback.

Most companies cannot automatically capture and aggregate the experiences of MSLs, such as content usage and feedback. Implementing tools to capture this information is critical for refining the scientific communication strategy and preparing all teams for future conversations with the wider HCP universe.

04. Content customization is key for MSLs.

To remain relevant and gain continued access to KOLs, MSLs must customize content to meet the specific needs and interests of their audience. This helps them become a trusted source of information.

05. Digitizing scientific communication platforms (SCPs) is important for success.

Digitizing the SCP helps systematically link the scientific narrative to the medical content created from it. New solutions help teams organize SCPs centrally, using scientific statements to create content with consistent language, referencing, and tracking how and where key messages are being used externally to inform future activities. This can also set the foundation necessary to use AI successfully within modular and personalized content.

06. Content utilization metrics are a must.

Tracking how content is being used and interacted with is vital for managing the content supply chain efficiently and making sure it's effective.

Stay tuned for our next paper in the series on scientific belief alignment.



APPENDIX

Medical Impact Workbook

Evaluation of Key Areas
and Potential Metrics

Types of Educational Offerings

Biopharmas offer a wide range of education to various audiences — from KOLs and HCPs to patients and caregivers. While the formats, channels, and consumption methods vary, these activities mainly focus on disease, treatment, or product attributes.

The education offerings typically fall into one of the following categories.

01. Continuing medical education (CME)/Continuing professional development (CPD) for healthcare professionals

Independent medical education grants

Biopharmas often engage with professional societies, academic institutions, medical education agencies, and other independent medical education providers to produce educational content. While the biopharma funds the initiatives, the providers develop the content independently to ensure it's non-promotional. This type of content also adheres to strict accreditation standards (like those from ACCME in the U.S.) that mitigate bias.

Examples include:

- Educational conferences and congresses sponsorships
- Symposia, webinars, and e-learning modules (disease, treatment, or product-focused)
- Preceptorships and visiting professorships
- Grants to healthcare organizations to support healthcare professional attendance at educational programs

Company-led medical education (non-promotional)

This scientific and non-promotional education, detailed in this paper, focuses on the science behind products, disease pathophysiology, and clinical data. It is developed and delivered by medical affairs teams and can include:

- Scientific standalone meetings and webinars
- Internal training for medical science liaisons (MSLs) and other staff
- Information on new drug approvals, indications, and safety profiles

It also includes product-specific training. As the name suggests, this type of education is directly related to a company's specific product for example a medical device and focuses on topics like proper administration and safe handling. This education, while somewhat linked to commercial interests, is considered critical for safe and effective use of a product.

02. Patient education programs

Patient education programs support patients and caregivers in understanding disease and treatment, with a goal of improving medication adherence and health outcomes. These programs often include educational materials, digital platforms, instructional assistance from healthcare providers, and even outreach. Programs include:

- **Disease and condition education:** Provides information to patients and caregivers so they can better understand a specific health condition, including symptoms and treatments. Popular formats include brochures, websites, and videos.
- **Medication information and adherence:** Focuses on prescribed medications and information around topics like dosages and side effects to improve patient understanding and adherence. Includes digital health tools and mobile applications for medication reminders and tracking.
- **Patient support programs:** These programs encompass educational resources along with other support services around areas like financial assistance, counseling, and case management to help patients access and benefit from their treatments.
- **Treatment decision support:** Supports patients in making well-informed choices about treatment options through resources and counseling.
- **Wellness and prevention:** Programs that encourage patients to take a proactive approach to their health, focusing on preventing disease, managing existing conditions, and improving overall quality of life.

Example of Knowledge Ladder/ Customer Journey Map



Targeted Scientific Education Checklist

Use this checklist to help you evaluate key areas across your organization.

Strategy

- ☐ Who owns medical education in your organization?
- ☐ Do you have a defined education strategy?
 - ☐ Is it product- or indication-specific?
 - ☐ How does it relate to your ultimate objective (improving specific patient outcomes, changing clinical practice, etc.)?
 - ☐ Does it include KPIs that align with and measure your strategy?

Notes

Target Audience

- ☐ Who is your target audience?
- ☐ What is the criteria for your target audience?
- ☐ How do you align on the target audience with other functions (market access, commercial)?
- ☐ Are you clear on which key stakeholders need to “do” or “believe” what – and at which point in time – and what they need to “know” to achieve your ultimate objective?
- ☐ Do you capture that in a structured way?
- ☐ Do you have stakeholder education journey mapping or adoption ladders in place?
- ☐ How do you track the learning progression of your target audience?
- ☐ How do you deal with biases when capturing progress?
- ☐ How do you identify knowledge gaps in your target audience?

- ❑ Do you have an integrated medical communications plan in place?
- ❑ Do you have a clear and explicit scientific narrative?
- ❑ Are medical affairs and other functions aligned on that narrative?
- ❑ Does everyone involved know and understand the scientific narrative?
- ❑ Where do you store it?
- ❑ Do you have a scientific communication platform (SCP)?
- ❑ Have you digitized your SCP?
- ❑ Do you have a central, single source of truth for all medical communication activities?
- ❑ How do you manage communication objectives, scientific statements, and references?
- ❑ How do you share your SCP across medical affairs and the rest of the organization?

- ❑ How do you account for your stakeholders' content and channel preferences?
- ❑ How do you manage the omnichannel delivery of information/education?
- ❑ Does your publications strategy support your educational plan?
- ❑ Who produces the content that is used in medical education and field interactions? (Is it global to local?)

- How do you evaluate your education programs, both in the short and long term?
- Which metrics do you use?
- Do your metrics go beyond volume and reach?
- Do you use scientific share of voice?
- Are you able to quantify the changes in knowledge and understanding?

KPIs and Metrics

Use this list as a starting point with your team to discuss potential KPIs and metrics around targeted education within your organization.

GENERAL MEDICAL EDUCATION KPIs (Applicable to all events)

of priority KOLs/HCPs engaged

Distribution of global vs national vs regional/local KOLs engaged by event type

% of top tier KOLs reached through any event type

% of scientific narrative messages delivered through events

Pre- and post-event knowledge scores — surveys utilized to measure changes in audience knowledge or retention

Event feedback and evaluation scores

CONGRESSES

of attendee or badge scans at booth

% of top tier KOLs reached vs other HCPs

In-booth engagement (requests for information, questions, meeting scheduled)

of customer sponsored presentations and posters

Share of scientific voice (% of customer-sponsored content vs others)

of inbound requests within 1 month

EDUCATIONAL EVENTS

of attendees per event

Distribution of attendees by speciality or degree (e.g., APP)

% of attendees by tier

of net new KOLs participating in events by quarter

Average event survey/participation scores

% of medical educational activities linked to unmet patient needs and related medical practice change

% of knowledge change based on the pre- and post-knowledge test for HCP-to-HCP educational activities

Educational outcome assessment survey scores

Medical event participation feedback scores

PUBLICATIONS

of acceptances in publications

Engagement with publications (altmetrics or non-traditional indicators of research impact that track how scholarly work is shared and discussed online, including mentions on social media, news outlets, blogs, and policy documents, as well as downloads and views)

Social media sharing of articles

SCIENTIFIC MESSAGING

% of content with defined scientific narrative tags

% of content linked to the scientific communication platform (SCP)

% of scientific statements that don't have content

% of content linked to unmet patient needs and related medical practice change

% of engagements using tagged content

% of field medical communications aligned with main scientific narrative
(assess a sample of field communication)

Hours and months saved maintaining the SCP

% of users adopting digital SCP

% of users reporting digital SCP is more accessible

% of SCP that has been localized

% of SCPs linked to content in all key markets

OMNICHANNEL ENGAGEMENT

% of engagements aligned to HCP preferences

% of medical events attended by top tier KOLs

% of content shown by field medical teams

Sentiment of HCP on content

Length of time spent on individual slides or documents

of times content is shown or shared

of times content used by MSLs to prepare for meetings with KOLs

Quality of scientific questions and comments captured by field medical teams during engagements

of pieces of content distributed

Digital content: click through rate, time spent, completion rate

What specific action did the HCP take as result of the educational exchange (share information, change protocol, start investigator-initiated study, reference data in guidelines/presentation)?

OTHER RELATED METRICS

Closure of knowledge gaps

Length of time to move HCP along each stage of knowledge ladder

Therapy moved from specialist level to general practitioner

Share of scientific voice and sentiment analysis

Addition of product to guidelines

Changes in HCP opinions, attitudes, or beliefs

Example of Digitized Scientific Communication Platform (SCP)

The scientific communication platform (SCP) serves as the single source of truth — an organized, strategic digital resource that houses the complete scientific narrative and substantiating data to drive internal alignment, consistency, accuracy, and compliance across all external medical communications.

Medical organizations use the SCP to define their messaging hierarchy. The images below give an example of this hierarchy in a digital SCP format.

01. Strategic Imperatives and Objectives:

Define the scientific narrative you want your audience to know

The screenshot displays the Veeva Medical Scientific Communications Platform interface. The top navigation bar includes the Veeva Medical logo, a search bar for Communication Platforms, and a user profile icon. Below the navigation bar, the main content area is titled "Communication Platform: The Vevasumab Program Scientific Communication Platform" and is marked as "In Review". The interface shows a hierarchy of pillars under the "Pillars" tab. The left sidebar lists the pillars: Pillar 1: Disease State and Pathophysiology, Pillar 2: MOA and Pharmacology, Pillar 3: Safety and Tolerability, Pillar 4: Efficacy, and Pillar 5: Clinical Landscape. The main content area displays the details for Pillar 1, Pillar 2, and Pillar 3. Pillar 1 is titled "Disease State and Pathophysiology" and includes a description of PTCL (Peripheral T-cell lymphoma) and its subtypes. Pillar 2 is titled "MOA and Pharmacology" and includes a description of PTCL and its mechanisms of action. Pillar 3 is titled "Safety and Tolerability" and includes a description of PTCL and its safety profile. Each pillar has an "Approved" status and a "Communication Objective" button.

02. Scientific Position: Define pillars like disease state, MOA, safety, etc.

The screenshot displays the Veeva Medical Scientific Communications interface. The top navigation bar includes 'Tasks and Library', 'Scientific Communications', 'Field Medical', 'Medical Inquiry', 'Medical Information', and 'Publications'. The main content area is titled 'Communication Platform: The Vevasumab Program Scientific Communication Platform' and is in 'In Review' status. The left sidebar shows a list of pillars: Pillar 1: Disease State and Pathophysiology, Pillar 2: MOA and Pharmacology, Pillar 3: Safety and Tolerability, Pillar 4: Efficacy, and Pillar 5: Clinical Landscape. The main content area for Pillar 1 is titled 'Disease State and Pathophysiology' and contains a list of statements. The first statement is 'PTCL is a relatively rare cancer, accounting for only about 10-15% of all non-Hodgkin's lymphomas (NHL). There are over 20 different subtypes of PTCL, each with varying characteristics, prognosis, and treatment approaches. Some common subtypes include Angioimmunoblastic T-cell lymphoma (AITL), Anaplastic large cell lymphoma (ALCL), and Extranodal natural killer/T-cell lymphoma, nasal type (ENKTCL). PTCL arises fr...'. This statement is marked as 'Approved'. Below it, there are three sub-statements: '1.1: Non-Hodgkin's lymphoma and Peripheral T-cell lymphoma are a group of cancers that develop in lymphocytes, a type of white blood cell that helps the body fight infection. Peripheral T-cell lymphoma (PTCL) is a specific type of NHL that develops in mature T-cells. PTCL is a relatively rare cancer, accounting for only about 10% of all NHL cases that produce symptoms that are not fully controlled by current standard of care.', '1.1.1: Lymphoma is the fourth most frequent malignancy diagnosed during pregnancy, occurring in approximately 1:6000 of deliveries. Its occurrence may increase due to the current trend to postpone pregnancy until later in life and the suggested high incidence of AIDS-related non-Hodgkin's lymphoma in developing countries.', and '1.1.1.1: Non-Hodgkin lymphoma is a group of malignant neoplasms originating from lymphoid tissues, mainly the lymph nodes. These tumors may result from chromosomal translocation, various toxins, infections, and chronic inflammation.' Each of these sub-statements is also marked as 'Approved'.

03. Communication Objectives: Define for each pillar

04. Scientific Statements and References:

Organize statements in a hierarchy and back them up with references

This screenshot shows the same Veeva Medical Scientific Communications interface as the previous one, but with additional content. The main content area for Pillar 1 is titled 'Disease State and Pathophysiology' and contains a list of statements. The first statement is 'PTCL is a relatively rare cancer, accounting for only about 10-15% of all non-Hodgkin's lymphomas (NHL). There are over 20 different subtypes of PTCL, each with varying characteristics, prognosis, and treatment approaches. Some common subtypes include Angioimmunoblastic T-cell lymphoma (AITL), Anaplastic large cell lymphoma (ALCL), and Extranodal natural killer/T-cell lymphoma, nasal type (ENKTCL). PTCL arises fr...'. This statement is marked as 'Approved'. Below it, there are three sub-statements: '1.1: Non-Hodgkin's lymphoma and Peripheral T-cell lymphoma are a group of cancers that develop in lymphocytes, a type of white blood cell that helps the body fight infection. Peripheral T-cell lymphoma (PTCL) is a specific type of NHL that develops in mature T-cells. PTCL is a relatively rare cancer, accounting for only about 10% of all NHL cases that produce symptoms that are not fully controlled by current standard of care.', '1.1.1: Lymphoma is the fourth most frequent malignancy diagnosed during pregnancy, occurring in approximately 1:6000 of deliveries. Its occurrence may increase due to the current trend to postpone pregnancy until later in life and the suggested high incidence of AIDS-related non-Hodgkin's lymphoma in developing countries.', and '1.1.1.1: Non-Hodgkin lymphoma is a group of malignant neoplasms originating from lymphoid tissues, mainly the lymph nodes. These tumors may result from chromosomal translocation, various toxins, infections, and chronic inflammation.' Each of these sub-statements is also marked as 'Approved'. Below the sub-statements, there is a table of references. The table has four columns: Name, Document Number, Status, and Reference Type. The references are: 'Document Name (v3.0)' with Document Number 'REF-US-9966', Status 'Approved', and Reference Type 'Anchor'; 'Really Long Document Name (v3.0)' with Document Number 'REF-US-7658', Status 'Approved', and Reference Type 'Anchor'; and 'Last Document Name (v3.0)' with Document Number 'REF-US-4455', Status 'Approved', and Reference Type 'Document'. Below the table, there is a section for 'Statement Assets' which includes 'Treatment Figures (v2.0)' and 'Natevba Talking Head (v7.0)'.

05. Component Assets: Reference supporting component assets

06. Lexion: Define the terms that should and should not be used

07. Reporting and Dashboards: Track how and where key messages are being used externally to inform future activities.

