THE MSL

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SPRING 2024

The Importance of Multidimensional Teams in MSL Thought Leader Engagement

From Development to Commercialization: Transforming Medical Insights Into Action

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Letter from the Editor

By Cherie Hyder, PharmD, MSL-BC | Spring 2024

Hello MSL Journal Readers!

Welcome to another journal edition, hot off the press and ready for your reading enjoyment! We begin 2024 with a sense of renewal, leaning into changes in our medical affairs industry and knowing how vital it is to show up each day, delivering value to support enhancing patient care and outcomes. Writing this letter to all of you on Leap Day – an official leap year – is not a coincidence! Leap year occurs when an additional day is added to the calendar year to align with the Earth's orbit, so essentially this is a small adjustment to keep a consistent rhythm for time. And, in keeping with this theme, we each reflect on what activities we are doing, how we do them and what is most important as we start a new year. It is in this mode that we begin to make our own small changes that help us align to our own orbit: our mission, our purpose and key medical strategies!

This issue of The MSL Journal is dedicated to how we stand out from others in field medical, how we show value, and how we advance efforts to reach a higher level of success! Some areas that our contributing authors explore include launch success approaches, enhancing skills such as strategic focus, creativity, influence and leadership as well as emotional intelligence and how we infuse technology into our field activities to create efficiencies and find new meaning through data analytics. As we delve into these areas that align to our desire for value demonstration, I hope these words of wisdom, tips and best practices add to your current methods and expand your opportunities to make a difference for patients who are waiting for better treatments. All that we do to help clinicians and researchers, patient groups and organizations as well as payer groups understand unmet patient needs, novel clinical data and approaches to advance care are at the heart of what medical affairs is tasked with doing each day. It takes so many stakeholders to truly move us to where we want to be, yet with unending perseverance, adaptability, and an unrequited thirst for knowledge, we are well prepared to deliver on goals that may seem lofty at times!

As you begin 2024 and feel Spring coming around, new green emerges after the long winter hibernation and fuels a sense of energy, and I hope your time reading these articles will give you new insights to build into your strategic planning for your particular focus! Keep aiming for excellence and know this is a journey, never a destination really, as we will push for new advances and keep stretching to help patients on their journey to receive optimal care with ever better options today and going into the future. If you have not already looked into change leadership for development, this is an area that can truly enhance how you respond to the changes of today and those we know are coming. Creating resiliency in how we navigate turbulent times is a key part of our recipe for success.

Don't forget to celebrate International MSL Day on March 27th! We applaud each and everyone who is part of medical affairs and strives to make a difference, adding value through your work!

Wishing you all good health, proper balance in your lives and a chance for renewed energy to kick start 2024!

Cheers!
Cherie

About the author:

Cherie Hyder, PharmD, MSL-BC

Cherie Hyder is a Syndicated National MSL Director at Syneos Health. In her previous job at Biohaven Pharmaceuticals, she supported a virtual launch of Nurtec ODT for acute migraine. She has been involved in drug development for more than 30 years, working at the FDA in CDER and pharmaceutical companies including Pfizer, Lilly, Novartis, Solvay, and Avanir, among others. At the University of Missouri, she received a Doctor of Pharmacy degree with the intention to devote her career to pharmaceutical research. She has multiple adjunct faculty appointments and enjoys teaching opportunities.

10 Essential Elements for MSLs to Effectively Navigate the Increased Pressure of Gathering Actionable Insights from KOLs

By Samuel Dyer, MD, PhD | Spring 2024

Medical Science Liaisons (MSLs) are under unprecedented pressure to gather actionable insights from Key Opinion Leaders (KOLs). This task has increasingly grown in importance over the last several years as pharmaceutical companies rely heavily on the nuanced expertise and perspectives that KOLs provide. These insights are vital in shaping drug development, uncovering new indications, informing market access strategies, and ultimately enhancing patient care. Reflecting this increased pressure, a 2024 global survey conducted by the Medical Science Liaison Society revealed that an astounding 91% of MSLs, MSL leaders, and executives, reported that there has been significantly increased pressure on MSLs to gather Actionable Insights from KOLs/HCPs. This not only highlights the escalating expectations placed on MSLs but also demonstrates the urgent need for a sophisticated, structured approach to insight gathering.

Responding to this need, A few years ago, the MSL Society developed the first and only comprehensive MSL training program for

Gathering Insights, based on extensive research, including numerous surveys and an analysis of best practices derived from thousands of responses from MSLs and MSL leaders. This data-driven approach ensures a comprehensive understanding of what strategies are most effective. This program has garnered widespread recognition and has been utilized across the pharmaceutical, medical device, and biotechnology sectors, serving as a foundation for MSLs striving to meet the heightened pressure to gather actionable insights. Having facilitated this training for 61 companies across more than 15 countries, I've witnessed firsthand the benefits of a structured approach to insight gathering.

Given the increased emphasis on gathering valuable insights, it's essential for MSLs to be provided a framework, empowering them to effectively meet this new demand. The following are 10 essential elements that should be included in a framework for MSLs to effectively gather and leverage actionable insights from KOLs:

1. **Insight Alignment:** Insights must be framed within the broader medical strategy for the product, ensuring that they contribute directly to the strategic goals and drive therapeutic advancements.
2. **Company-Specific Insight Definition:** It's crucial for MSLs to understand how their company/team defines an actionable insight.
3. **Focus on Insight Quality:** Prioritizing the quality of insights over quantity ensures the concentration of efforts on strategically valuable information.
4. **Insight Integration:** A systematic approach to incorporating insights into the overall strategic plan is crucial for the development of actionable strategies.
5. **Clarification of Goals, Strategy, and Tactics:** Clearly distinguishing between goals, strategies, and tactics in the insight-gathering process guides effective strategic planning.
6. **Insight Documentation:** Effectively recording insights concisely and clearly into a tracking tool, ensuring they are readily interpretable, relevant, and actionable.
7. **Strategic Questioning:** Skillful questioning techniques enable MSLs to transform basic KOL observations into actionable insights.
8. **Utilizing Technology:** Leveraging technology to enhance the efficiency and accuracy of insight gathering.
9. **Actionable Insight Differentiation:** Differentiating between general observations and actionable insights focuses efforts on information that can directly influence medical strategy.
10. **Customized MSL Training:** Tailored training programs, based on real-world experiences and best practices, equipping MSLs to effectively gather and share KOL insights.

This structured approach ensures that MSLs will be able to meet the expectations of gathering actionable insights, turning the challenge of increased pressure into an opportunity for enhanced strategic contribution to their organizations.

Reference:

2024 Global MSL Society Survey, n = 195

About the author:

Samuel Dyer, MD, PhD

Dr. Samuel Dyer is the CEO of the Medical Science Liaison Society and has over 25 years of international MSL experience. During

his career, he has managed MSL teams and operations in over sixty countries across the United States, Canada, Europe, Africa, the Middle East, Australia, and New Zealand. He has facilitated the successful launch of pharmaceutical and medical device products for both Fortune 500 pharmaceutical companies and small biotechnology companies.

Dr. Dyer has coached, interviewed, and reviewed the CVs of countless aspiring MSLs. His insights and guidance have resulted in hundreds of aspiring MSLs successfully breaking into their first roles.

While leading the MSL Society, he has conducted MSL training programs for over 75 pharmaceutical, biotechnology, and medical device companies in more than 15 countries. Dr. Dyer has also written extensively on the Medical Science Liaison profession, including numerous published articles, benchmark studies, and reports. He has been the keynote speaker and moderated numerous international conferences on various MSL–related topics, including creating teams, management, MSL training, proper utilization of MSLs, global trends, and the KPIs and metrics used to measure MSL performance. Dr. Dyer has also served as a resource and consultant on several MSL–related projects for several organizations, including McKinsey & Company and Bain & Company.

Dr. Dyer has an MD from Washington University (Health & Science) School of Medicine, a PhD in Health Sciences from Touro University, a Master's degree in Tropical Biology (where he studied in the Amazon) from Southern Illinois University Edwardsville, and a Bachelor's degree in Biology from the University of the State of New York. Dr. Dyer also completed a certificate program for Executive Leadership and Strategy in Pharmaceuticals and Biotechnology at the Harvard Business School.

Dr. Dyer is the author of the multi-award-winning and Amazon #1 Best Seller, *The Medical Science Liaison Career Guide: How to Break into Your First Role* (https://amzn.to/4aoYcZp). The book is the first and only step-by-step guide on how to break into the MSL profession and it has received multiple prestigious awards, including:

- 2024 Winner of the American Legacy Book Awards in the Business: Careers category.
- 2024 "Gold Award" Winner – Literary Titan Book Awards in the Career category.
- 2023 "Best Book" Winner – Pinnacle Book Achievement Award in the Career Development category.

He is also the author of the *Medical Science Liaison Job Application Tracking & Interview Self-Evaluation Journal* (https://amzn.to/49n6MGR).

Elevating Medical Science Liaison Careers: Perspectives on the Long-Term Benefits of Formal Onboarding Training

By Samuel Dyer, MD, PhD | Spring 2024

Medical Science Liaisons (MSLs) require comprehensive and broad onboarding training to fully prepare for their roles, yet they typically only receive training that is narrowly focused on disease state, therapeutic areas, and products they support. Crucially, this limited approach to onboarding neglects essential skills such as Key Opinion Leader (KOL) engagement, territory management, strategic thinking, and other skills that are pivotal to their success in the field. In fact, according to a survey conducted by the MSL Society, 72% of MSLs globally, revealed that their initial training only consisted of self-study of journal reprints. This method fails to cover the breadth of skills and knowledge necessary, limiting MSLs' ability to navigate the complexities of their positions effectively.

Recognizing this significant gap, the MSL Society created a comprehensive 3-Part onboarding training program specifically designed for the nuanced requirements of newly hired MSLs. The program begins with **Part 1: 5 days of Live Training**. Each day is facilitated by an experienced MSL leader, providing a unique and immersive educational experience. Part 2: 40 Hours of self-paced learning. The program provides access to a thorough 16-course curriculum, the Medical Affairs Foundation Training Program, establishing a solid educational foundation. The program concludes with Part 3: Ongoing Support. The program continues by offering ongoing Professional Development opportunities, including a 1-year Professional Level membership to the MSL Society and waived fees for the prestigious MSL certification (MSL-BC).

Following its debut session April 22-26, 2022, the program has been iteratively refined and delivered multiple times, each enhancing the onboarding experience. To assess the long-term efficacy and transformative potential of this comprehensive training, we asked several past participants one year after their completion for their candid feedback. Their perspective provides valuable insights into the program's profound impact, highlighting the critical role of structured onboarding in unlocking the full potential of MSL professionals.

Can you describe specific elements of the training that enhanced your preparedness for engaging with Key Opinion Leaders (KOLs), and how did these elements equip you for effective interactions?

The in-person training was extremely valuable. We were able to learn how to critically evaluate a research paper, territory

planning, Congress planning, preparing for KOL meetings, and learning how to gather and deliver insights.

Dawn Delo O' Reilly, PhD, MMS, PA-C
Senior MSL Lung/GI-Carolinas
Daiichi Sankyo, Inc.

Can you identify any specific tools or methodologies provided during the training that have become indispensable in your daily work?

There were a lot of tools that they provided but I think the most helpful was the workshop on insight gathering. We learned how to prepare for meetings, collect, and navigate medical insights and strategically deliver them back to our leadership.

Dawn Delo O' Reilly, PhD, MMS, PA-C
Senior MSL Lung/GI-Carolinas
Daiichi Sankyo, Inc.

Could you describe how the collaborative and networking opportunities within the training program have benefited you professionally?

I really enjoyed meeting other MSLs from other companies. It allowed us to network and learn some tips and tricks that they have learned that have worked for them. It also gives us an opportunity to keep in touch should we ever need them.

Dawn Delo O' Reilly, PhD, MMS, PA-C
Senior MSL Lung/GI-Carolinas
Daiichi Sankyo, Inc.

I had been at my prior company for less than one year, so I took the course as a new MSL (having spent the past 20+ years in clinical practice). This course fulfilled MSL training, mentoring and orientation, which is something I had not encountered in my previous role. I even gained a mentor (and medical affairs expert), who was a speaker at the training!

Michelle Zubrycki, RN, ACNP
MSL
Aurinia Pharmaceuticals Inc.

Reflecting on the entire training experience, what aspects did you find most beneficial and enjoyable, and how have they influenced your performance and approach as an MSL?

Every day of the training experience brought valuable skills and tips to apply to everyday use as an MSL. I think the most valuable training that has influenced my performance and approach as an MSL is the insight gathering workshop. It takes a lot of skill and practice to plan a KOL meeting, execute it successfully and then be able to gather, summarize and deliver strategic insights back to the company and the workshop educated us on all of this and allowed us an opportunity to practice with each other.

Dawn Delo O' Reilly, PhD, MMS, PA-C
Senior MSL Lung/GI-Carolinas
Daiichi Sankyo, Inc.

What feedback have you received from colleagues or KOLs that you attribute to skills or knowledge gained from the onboarding training?

During the training, Samuel uses the acronym K.I.S.S., and says "don't be weird." I have found that I get more "aha" moments or verbalized clarity from KOLs and colleagues when I am keeping things simple and having a genuine conversation versus speaking in a scripted, rigid, sterile manner. Having spoken with many providers as a clinician before industry, I was able to combine that experience with the expectations of communication in the industry and make an impact.

Jackie Edwards, DMSc, BSN, PA-C
MSL
Biodesix

Could you share an example where the training directly influenced your ability to overcome a challenge or capitalize on an opportunity?

Learning that KOL strategy should be aligned with a medical strategy and the company's overall goals was a helpful tip to apply when we had to develop a strategy in my role. The KOL designation was used very liberally and there weren't any qualifying metrics. Being specific helped us create a much more manageable list, which creates greater impact and is much more simple.

Jackie Edwards, DMSc, BSN, PA-C
MSL
Biodesix

How would you compare the competency and confidence you feel in your role now to before you attended the training?

When I attended the MSL Society Onboarding training, I had changed careers from direct patient care and only been an MSL for 3 weeks. I was taking in a lot of information about the therapeutic area I was in and adjusting to the role. After the onboarding training, I felt equipped to navigate as an MSL from the tools and tips provided on communication, quickly dissecting information and planning.

Jackie Edwards, DMSc, BSN, PA-C
MSL
Biodesix

In which ways did the training exceed industry standards, and how has this set you apart in your role as an MSL?

The MSL Onboarding training emphasizes collaboration and thinking outside of the box to accomplish your MSL goals. The training strategically places you outside your comfort zone with planned seating and creating small group exercises for skills practice. While practicing as an MSL, you have to be adaptable and collaboration is a key skill. The MSL Onboarding gives new MSLs a small dose of the reality of the intensity with the intensity of its program. Being prepared, organized, and adaptable are skills that will set you apart as a new MSL.

Jackie Edwards, DMSc, BSN, PA-C
MSL
Biodesix

What message would you give to someone considering this training about its value and potential impact on their MSL career?

DO IT. I was fortunate enough to be able to do this training during the first 6 months of my first MSL role and I'm so thankful that I had the opportunity. It doesn't matter what the therapeutic area is that you are an MSL in, you learn the foundation to being an MSL and how to succeed. The training environment is friendly and welcoming, really allowing everyone, no matter what your learning style is, to participate and benefit from the training. Once I completed the training, I really felt like I had learned the core competencies needed to succeed as an MSL and a solid foundation to work from and build my knowledge.

Kimberly Koetter, DNP, RN, APRN
MSL
Servier

I recommend the 5-day training to any MSL. The skills and knowledge that I gained were immeasurable. You will learn something…whether you are a novice, (like me), or a veteran MSL. Additionally, this is an investment for MSL team training!

Michelle Zubrycki, RN, ACNP
MSL
Aurinia Pharmaceuticals Inc.

About the author:

Samuel Dyer, MD, PhD

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He is also the author of the *Medical Science Liaison Job Application Tracking & Interview Self-Evaluation Journal* (https://amzn.to/49n6MGR).

What Communication Channels Should I Use When Communicating With My Team?

By Jill Fenwick, PhD | Spring 2024

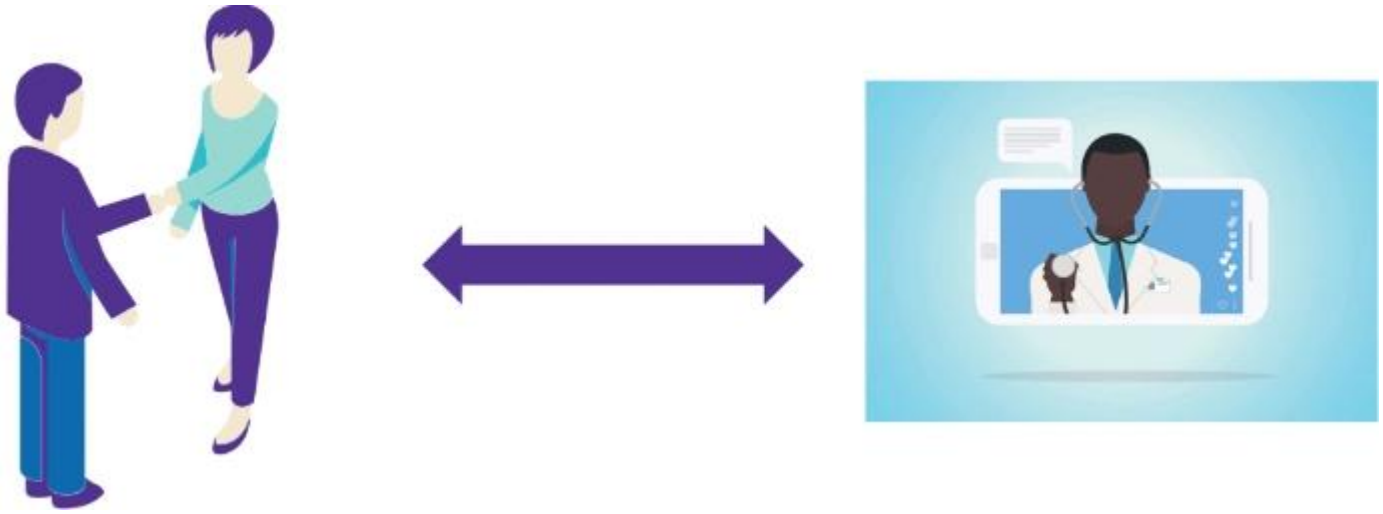
Hybrid communication is here to stay and in person meetings as well as virtual meetings are part of the MSL world. This is for good reason, as it allows for the use of the best channel depending upon time available, personal preference and the content of what is to be discussed. As an MSL team lead you can also build on all available channels when communicating with your team. This will not only increase and retain attention, but also trains your team members on appropriate use of the different communication opportunities.

In the same way that HCP preference is an important decider for channel use, then participant preference should be considered when choosing the right channel for your mentoring, coaching, managing or training. However, keep in mind that it should still be a mix of channels and not just in-person or just digital. This is also influenced by size of the group (if it's not one to one) and geography etc.

If all things are equal, then the same principles apply as for an MSL-HCP meeting example. First/initial meetings are best done face to face, especially if it's a new relationship. Often this is where you will get to know each other and set the ground rules/agenda for the future and start to create the trust needed in these relationships. The only exception to this may be training which often occurs in groups. This should still at some point be in person also, either as groups or field ride-alongs.

The nature of the discussion may also dictate the channel. If you know it is likely to be a difficult conversation, then this is best done face to face. The advantage that digital now gives us though, is the ability to follow up after those discussions with a virtual check-in which previously may have been just a phone call due to time and travel constraints. This then allows any follow-up or questions to be addressed once emotions may have settled to keep the discussion and relationship moving forward.

Having the option of mixing digital and in-person also allows for the formation of deeper manager, mentor and coaching relationships as discussions can be more frequent with the use of virtual discussions between the traditional face to face. This also allows for more timely feedback.



Training is the function that needs to use digital creatively to maximize and drive engagement of training attendees for the knowledge accumulation but also the skills training for in-person and digital interactions. Having the mix of in-person and virtual trainings should also increase comfort levels of people with digital tools as they continue to evolve. Overall each of the functions we discussed – coaching, managing, mentoring, training should also model best practices – why take feedback on making eye contact from someone who never does?

If an MSL who is reluctant to use a specific digital communication channel is strongly encouraged to use this communication channel with you as team lead, with time it is likely they will get comfortable enough to utilize this channel with others including their HCPs.

The takeaway is that digital is here to stay and we need to embrace it and use it productively both internally and externally, no matter what our role is. Let's use it to our advantage to make us even better at what we do!

About the authors:

Maja Beilmann-Schramm, PhD

Maja Beilmann-Schramm, PhD., Director Global Field Medical Excellence & HCP Exchange at Merck/EMD and owner of MSL-Excellence.de.
Maja holds a Phd. in Biology. She has been working successfully in the pharmaceutical industry for 20 years now, in a variety of positions with extensive experience in Marketing and Sales, Medical and Medical Science Liaison. For more than 10 years she has dedicated her work exclusively to the role of Medical Science Liaison with personal experience as MSL, MSL team lead at country and international level as well as driving MSL excellence on a global corporate level. She is currently holding the position of Global Director of Field Medical & HCP Exchange at Merck/EMD. Maja is the founder and owner of MSL-Excellence.de, where she provides mentoring and consultancy to aspiring MSL, MSLs and MSL Leaders. As a result, she follows the development of the

MSL role from a wide variety of perspectives.

Jill Fenwick, PhD

Currently Head of Medical Learning Oncology at EMD Serono (part of Merck KGAa). Prior to that was in Global Field Medical Excellence, having moved to the USA in 2019 to Lead North America Medical Training for Oncology. Joined Merck UK&I in Jan 2015 as an MSL and then Oncology MSL manager.

Having a PhD in oncology and over 25 years of experience in pharma, starting in sales and moving into Field Medical and management, means being able to take into account the Country end-user perspective in 2 key countries (USA and UK). This allows for the creation of engaging and interactive trainings that are strategic and actually relevant and useful for the intended audience. The ethos is training is fun!

MSLs Can Lead the Way Through Uncertain Times

By Marcus West | Spring 2024

MSLs are emerging as the principal players in pharma's post-Covid recalibration but they need to be equipped and coached in the skills to take their scientific knowledge and expertise to next level productivity

Introduction

Medical Science Liaison (MSL) teams and medical affairs are critical to industry success but the seismic shifts of the pandemic have propelled them into even more influential territory. MSLs hold the future in their hands, forming a critical bridge between pharmaceutical companies and HCPs and other key stakeholders as both sides look for knowledge and value in an uncertain world. Major organizations are restructuring. Sales forces have been trimmed or re-assigned with the emphasis heavily on delivering scientific content that is relevant to individual or small groups of HCPs. The race is now on to enhance the MSL role by upskilling their communication capabilities to ensure engagements with HCPs both broaden scientific awareness, deliver to corporate objectives and increase the Quality Use of Medicine (QUM).

Part 1 of Pharma's New Frontier whitepaper outlines the challenges and benefits of coaching a new generation of MSLs and Part 2 focuses on what is needed to enable this well-developed skill set, and how industry can rise to deliver extra value via their MSL teams.

Liberating MSLs

It is the fastest growing sector of the industry with fortunes riding on its efficacy in an ever more complex and segmented world. The MSL now operates in an arena where precision guided science and finely-honed communications skills are the vital edges to their ability to succeed. Access to HCPs, often built on familiarity and custom, is now volatile: HCPs, liberated and empowered by digital capability, no longer adhere to tradition and now demand specific scientific content welded to a clear understanding of their needs. The rules of engagement have changed; complex new medicines are being developed, rare diseases are being decoded and fresh routes to approvals and reimbursement are being explored as healthcare navigates the most upheaval in a generation.

The MSL is now, arguably, the most influential role in the pharmaceutical industry. Albert Bourla, chief executive of Pfizer – one of the many pharma giants announcing sales force redundancies and a sharper in-field scientific focus – stated: "We are evolving into a more focused and innovative biopharma company, and evolving the way we engage with healthcare professionals in an increasingly digital world." It is a clear indication of a major policy shift towards MSLs. AstraZeneca, Amgen and GSK are all leaning the same way.

A recruitment advertisement for a new AstraZeneca MSL post was clear in the core skills and responsibilities needed to build scientific partnerships with the latest scientific and medical information. It read: 'These outputs are guaranteed through continuously building robust scientific and medical expertise on the therapeutic area, AstraZeneca products and its competitors in combination with a business acumen attitude and strong communication skills'.

This whitepaper focuses on the burgeoning MSL role and how it can be supported and upskilled to deliver on expectations, maintain relationships and forge new lines of communication that deliver to HCP needs and company objectives. The challenge is to enable MSLs to make the best of their new opportunity to range across a wider landscape with more meaningful engagements. Rising to it will enable MSLs to help deliver better outcomes for patients.

Michelle Bridenbaker, Global Head Medical Information for Idorsia, summed up the new paradigm: "The role and function of the MSL has changed just as the expectations of HCPs have changed," she says. "The key now is to be flexible and to establish relationships with HCPs who know they are dealing with someone who is scientific and who has scientific support behind them."

Telling the scientific story

Elevating MSLs to be the 'shop window' for organizations is not without issues. Enthusiasm and commitment to their condition and therapy area are core MSL qualities but not all are natural communicators or have significant experience in telling a broader scientific story. Making complex information compelling without losing its focus or diluting its impact is a skill and an art.

Matt Britland, an experienced Medical Director with a long history of working in the pharmaceuticals industry and clinical roles, believes organizations need to invest in MSL career development to empower them to make the best of an expanded role and sphere of influence. "In an MSL, we look for curiosity and a passion for science but, where we probably once looked more for academic qualifications as a start point, it is now a case that sublime communications come first," he says. "It doesn't matter what you've got in your head – if you can't communicate it to internal or external stakeholders in a way they understand then it will stay in your head.

"Communication skills, soft skills, strategic mindset, working cross functionally, emotional intelligence and, I'll say it again, good communication, is what we are looking for. If you do a presentation and people come up and say 'that is one of the best I've ever seen' then you are the person we want. If no-one asks a question at the end of it, you're probably not. "It is not provocative. It's a kind of sales in a way but you are selling science and what a lot of sales people often cannot do is communicate the high science. You need that scientific knowledge. If you get lost in a conversation with a key opinion leader at any point, it de-credits yourself and your organization."

Enhancing the MSL skills set

Britland, who is President of the Australian Medical and Scientific Professional Association (APPA) which is dedicated to promoting excellence in medical affairs, added that MSLs also need to be tuned in to the differing needs of their HCPs, and have the ability to adapt the scientific message from HCP to HCP . He adds: "For the HCP, it tended to be a question of which organization has the best packaging and delivery of a product. But now they want something more. They are saying 'I don't really understand this. I need someone to really decode it for my patient group; not everyone else's, just mine.' That is where a good MSL with good communication skills pays dividends." Dr Maja Beilmann-Schramm, a globally recognised MSL mentor who has worked for Merck, Bristol-Myers Squibb and Shire, believes that the coaching of MSLs is fundamental to elevating the modern MSL's skills set.

"We need more coaching to find the sweet spot of providing benefits to the physician – something they really need – while aligning with the company's strategy," she says. "I think this is something MSLs need to learn because they can tend towards satisfying the first part of that equation while neglecting the company's needs. "This is why we need more focus on storytelling, wrapping the scientific content in a way that makes sense to the company's goals as well as the HCP. "It is not just learning the story, but really how to use the story in communication with the physicians and I feel that is somewhat missing; this is where coaching comes in."

Idorsia's Michelle Bridenbaker sees the MSL role expanding and echoes the call for more skills to boost their capabilities. "The growing importance of MSLs is what we are seeing across industry. They are having much more contact with the customers and,

because our products are so innovative, HCPs want to have that knowledge," she says. "A lot of good things follow from that empowered relationship because behind the MSL is the digital capability to log a sponsorship request, submit an investigator-initiated study protocol. All the stuff we have behind them is our scientific offering. You also have a consistency from what the MSL is saying is what they are hearing through the rest of the channels. "The good relationship an HCP has with the MSL leads to outstanding service."

Coaching is the Missing Link

Making MSLs more accomplished communicators takes more than flicking a switch or finessing a job description. The skills needed to energize their performance and efficacy require considered, consistent coaching. For many, it will be a departure and, for some, a challenge. "There is a lot of pushback from MSLs because this is a new aspect. They are scientists and the idea of storytelling may not be something they view as their role because they see it as not being free discussion," says Dr Maja Beilman-Schramm. "There should be space for that free scientific discussion but there has to be a point as to why you are having that discussion."

The commercial imperative is central to any engagement. "It is about framing scientific information and bringing it into context. For me, that is storytelling," she adds. "It is not about relating that the data says A, B or C; it is about saying what that means to a physician and their patients. "It is about following an order that sets the basis, highlights the challenge, and provides data that helps solve the HCP's challenge. It is telling our product's story. I've seen some teams do a great job putting all that in order then the MSL tells the story in a way that is not relevant. "The challenge is to get that right and I don't see any other way than coaching. The art is to tell the story at the pace the physician requires and employ active listening to ensure you do not lose them. This is an art; you have to train to get better at it. "We should have been doing it for years. Being of value and providing valuable scientific content to physicians targeted to their specific needs is nothing new." But organizations also need to comprehend that endowing MSLs with new skills takes commitment and investment in coaching. They too cannot expect MSLs to be instant hits in their new, expanded roles.

MSLs are an organization's heartbeat

"The good point for industry is that we know what has changed and have recognised that MSLs have to be supported in their soft skills," comments Michelle Bridenbaker. "Helping the MSL ask good questions will ensure the HCP feels that they are really trying to understand the root of what they are trying to do." This adds an extra, and key, dimension to the MSL function; one of ensuring the information and message have purpose that encompasses scientific understanding and corporate objectives. Bridenbaker adds: "As an MSL, you can no longer just sit there and say: 'I'm just stopping by for a nice, scientific discussion related to my company's product'. That's not going to work out – the MSL will have to be way more targeted and structured in approach. It is a mutually beneficial discussion that provides information but also recognises learnings from the physician and builds a relationship. That is an art."

The life sciences sector is transforming from the dominance of blockbuster drugs to a varied, innovative landscape where novel therapies are offering hope for people with intractable conditions and rare diseases. Medical affairs – with MSLs the heartbeat – is also evolving as it seeks to champion science, translate its benefits to narrower, tailored markets and enrich responsive dialogues with HCPs. It is a crowded market. The number of clinical trials registered in 2022 was 409,300 compared to 100,207 in 2010 and 2,119 in 2000, according to Statista research. They are also growing more complex and directed at smaller patient populations. Demand is also booming with a key indicator evident in the medical affairs outsourcing market being valued at $1.4 billion in 2020 and expected to achieve a compound annual growth rate of 12.2% over the next six years.

MSLs are being challenged to grow and respond. Matt Britland is convinced that MSLs and Medical Affairs are already playing a more central role across a product's life cycle. "It is the emerging force," he says. "But coaching is the missing link here. We need to be courageous and accept the responsibility to do more coaching and more mentoring. We cannot keep on being the ones just giving advice, that is a mediocre approach and is not what these roles are about. "It is not just about being a therapeutic expert. Now, it's about being a leader, an innovator and change agent, being a communicator and getting things done."

Enriching the Business

Matt Britland is also clear that MSLs can add benefit and boost the bottom line across an organization's activities by generating greater internal collaboration and efficiencies with knowledge-sharing the sledgehammer that busts through corporate silos. This, he and others believe, can bring scientific concepts and medical strategies to life, and enliven engagement with key opinion leaders. The key areas of challenge for organizations are how they deploy MSLs to respond to a fragmented market and multi-channel opportunities and then coach and equip them with an enhanced set of skills. "Their role will still be as a conduit to the clinician but as part of a multi-channel approach," adds Michelle Brindenbaker. "They will still be the super scientific expert

but their biggest task is to make sure that the clinician gets exactly what they need, based on their preferences. Before it was more: “Here’s a reactive slide deck and have a nice day, Doctor’. They have to change the way they interact. There is no going back.

“One thing an organization can do for an MSL is to support them in developing good communication skills.” The listening and learning element of these reshaped relationships is fuel for the entire organization, she adds, as knowledge from HCP interactions can be fed back into the business to inform future strategy. It is vital front-line intelligence.

Conclusion

A cohesive scientific approach with the MSL creates benefits across the healthcare landscape: HCPs get the information and data they need, patients benefit from more targeted application of therapies and the business flourishes across multiple metrics, from sales through internal collaboration to brand reputation. The MSL has always been a focal point in industry but now they are becoming crucibles where knowledge is distilled and shared and their influence is radiating across corporate performance. They have the opportunity to champion scientific excellence and, with the right support, the ability to maximize their professional returns. Their scientific prowess remains paramount but the days of operating in an academic corral have gone. With strong interpersonal engagement and communication skills, they can emerge from the shadows to become industry’s main players in a highly-segmented and demanding market. The recognition of the value and potential of MSLs has been achieved. It is time to provide them with the skills and the freedom to rise to the challenge.

About the interviewees

Matthew Britland, Global Platform Medical Director (Haem) & Medical Director Australia, Amgen. Matthew is also president of APPA Australia since November 2021. Matthew is an experienced Medical Affairs professional with a demonstrated history of working in the pharmaceuticals industry and clinical roles. Skilled in Pharmaceutical Medicine, Oncology and Haematology . Strong professional with a MMedSc focused in Pharmaceutical Medicine from UNSW Australia. Currently working towards DrPH which focuses on the role of Medical Affairs in the Quality use of Medicine (QUM) and its impact on patient outcomes.

Dr Maja Beilmann-Schramm, Director, Global Field Medical Excellence and HCP Exchange, Merck Germany. Maja has previous experience in a variety of roles with Shire Pharmaceuticals where she worked for 8 years. Most notably, Maja was Director of International Medical Science Liaison and Medical Scientific Strategy, Medical Affairs. Maja also has previous experience as a Product Manager for Sanofi.

Michelle Bridenbaker, Global Head, Global Medical Information and Communications, Idorsia Pharmaceuticals Ltd. Michelle is a senior leader in pharma and biotech for over 15 years in various capacities including: sales, pharmacovigilance, medical information & communications, quality assurance, and medical affairs. She has extensive international experience creating and innovating organizations. Michelle advises technology partners and other service providers that support the pharma/biotech industry, healthcare organizations, and not for profit organizations. Michelle is very passionate about optimizing the customer experience, leveraging technology to improve organizations, and creating highly successful and engaged teams.

About the author:

Marcus West

I have directed 35 plays and coached performances for 30 years. I have worked with the likes of LA director, Robert Benedetti,

US playwrights, Edward Albee and Will Eno, voice coaches, Kristin Linklater and Cicely Berry, Alexander teacher, Nadia Kevan, LA acting coach, Ivana Chubbuck, British playwright and screenwriter, Stephen Jeffreys, LA screenwriting master teachers, Steven Kaplan, Chris Vogler and Michael Hauge. I use these experiences with the world's leading performing arts practitioners and my own background in theatre, to inform my work in presentation coaching. I work with a host of CEOs and their firms around Australia including KPMG, DLA Piper, CBA, QBE, Merck, and BOQ, as well as politicians and barristers, to help them present their message with punch. I am also a talent coach with Seven, Nine, SBS, ABC, and Fox Sports working with reporters and presenters on their presentation and storytelling skills, as well as many of Australia's leading sportspeople. Clients have included Michael Slater, Wally Lewis, John Aloisi, Sharelle McMahon, Lara Bingle, Mark Ferguson, Ben Fordham, Allison Langdon, Mike Baird, Jonathon Brown, Glen Boss, and Tom Carroll.

In the past five years, I have created a new performance coaching app called 60 Seconds which is a crystallization of my experience.

Harnessing the Power of AI and Machine Learning to Develop Future Medical Affairs Leaders

By Drew Beck | Spring 2024

BACKGROUND

At Syneos Health® we believe that our people are our greatest asset. One of our approaches to nurturing a growing leadership community within our organization is to commit to the professional development and growth of our talented internal stakeholders. As part of our ongoing journey to build a culture of excellence within our Medical Affairs organization, our leadership team piloted a field medical affairs global leadership development program (GLDP) for a team of emerging medical science liaison (MSL) leaders.

In the Spring 2023 issue of The MSL Journal, Miller and colleagues report "the best leadership teams protect, encourage, and develop people to achieve their overall success and they do so together." The GLDP was created on this core philosophy of transformative leadership. We strongly believe that our organization will flourish when we learn and grow together.

Our publication reports on the outcomes of our GLDP pilot program and shows how our leadership team leveraged our internal Syneos Health Analytics Platform (SNAP) to customize each of our MSL's leadership learning journey. We also show how a supervised machine learning strategy can be applied to predict the likelihood of future MSLs participating in the program and developing as our internal future leaders.

PROGRAM OVERVIEW

The GLDP consisted of 7 high-performing field MSLs who shared a common career goal of advancing within our organization. The average pharmaceutical industry experience of the participants was 10.6 years (range 2-33 years). 60% of the participants reported not having people management experience prior to entering the program.

This group committed to participating in our pilot program for six months (June 2023-November 2023). 14 of our internal medical affairs leaders served as program moderators. The MSLs were exposed to 5 distinct leadership tracks that would help develop and prepare them as future leaders within our organization. The content of these tracks were based on a proprietary leadership curriculum which focused on the "First Time Manager Journey" and included:

- Becoming a Front-Line Leader
- Developing People
- Accountability
- Driving Execution
- Emotional Intelligence

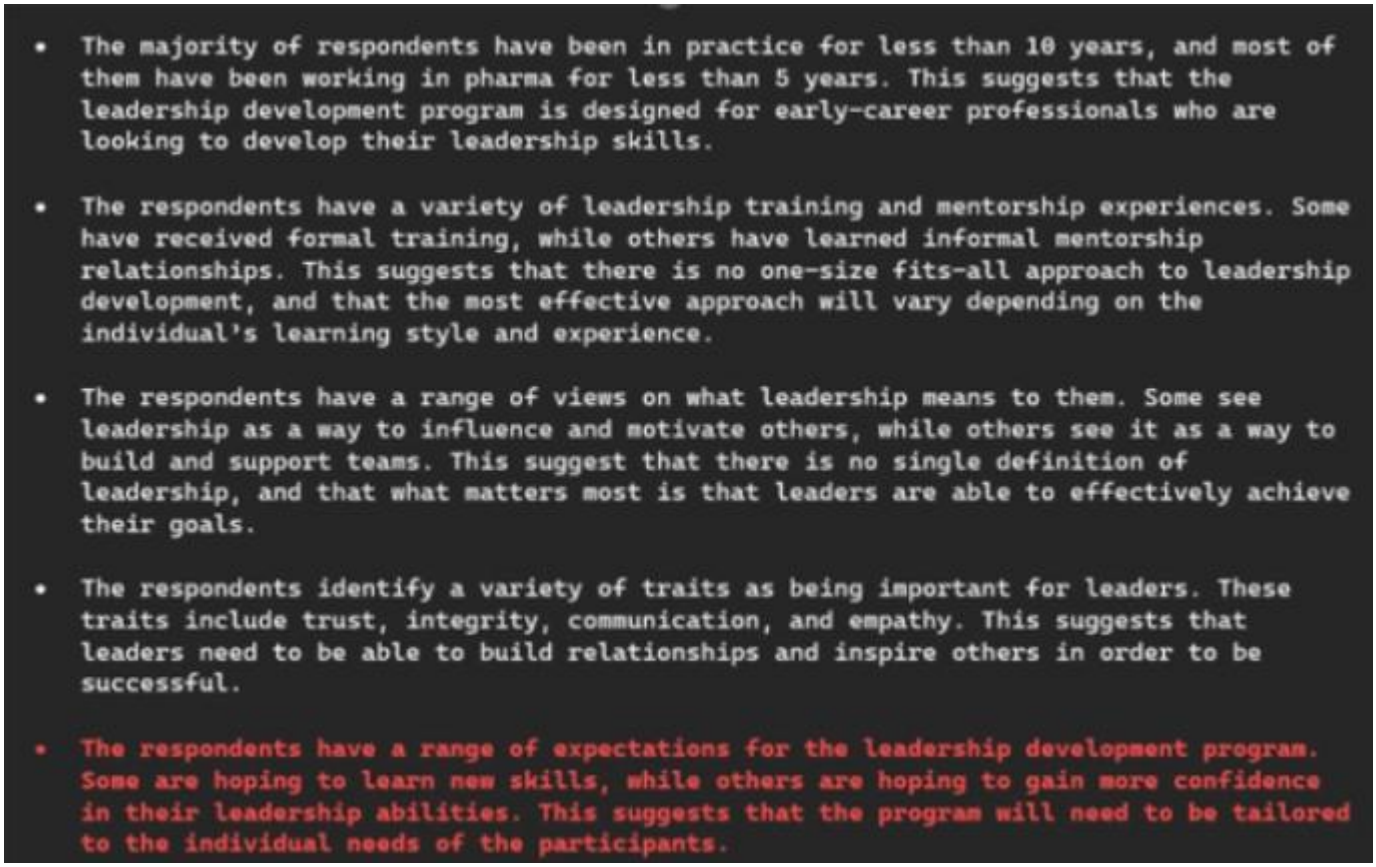
Each MSL prepared a 30-minute presentation to prime the discussion aligned with these five core themes. Each session was 90 minutes in length. Our leaders served as moderators and also shared their leadership experiences related to the specific track among the broader participant group.

We used our Microsoft® Azure OpenAI technology stack to help assess specific learning needs of our program participants. This was accomplished using serial surveys we collected prior to the start, during the mid-point, and at the conclusion of the program. Our AI output gave us insight on how to customize our curriculum to optimize learning for all program participants. Lastly, we used our internal integrated development environment (IDE) to process our machine learning (ML) algorithm.

PRE-PROGRAM SURVEY RESULTS

MSLs were asked to complete a brief survey prior to starting the program. The survey results were entered into Azure OpenAI to identify patterns and insights of the MSL expectations, baseline understanding of leadership, and appropriateness of the leadership content. The initial output is shown below.

MSLs expectations for the GLDP-helped our leaders focus on customizing the curriculum



- The majority of respondents have been in practice for less than 10 years, and most of them have been working in pharma for less than 5 years. This suggests that the leadership development program is designed for early-career professionals who are looking to develop their leadership skills.
- The respondents have a variety of leadership training and mentorship experiences. Some have received formal training, while others have learned informal mentorship relationships. This suggests that there is no one-size fits-all approach to leadership development, and that the most effective approach will vary depending on the individual's learning style and experience.
- The respondents have a range of views on what leadership means to them. Some see leadership as a way to influence and motivate others, while others see it as a way to build and support teams. This suggest that there is no single definition of leadership, and that what matters most is that leaders are able to effectively achieve their goals.
- The respondents identify a variety of traits as being important for leaders. These traits include trust, integrity, communication, and empathy. This suggests that leaders need to be able to build relationships and inspire others in order to be successful.
- The respondents have a range of expectations for the leadership development program. Some are hoping to learn new skills, while others are hoping to gain more confidence in their leadership abilities. This suggests that the program will need to be tailored to the individual needs of the participants.

Trends from surveys provided insight into the MSL baseline understanding of leadership

- Most respondents are early-career professionals. The majority of respondents have been in practice for less than 10 years, and most of them have been working in pharma for less than 5 years. This suggests that the leadership development program is designed for early-career professionals who are looking to develop their leadership skills.

- Many respondents have received leadership training or mentorship. Nearly half of the respondents have received formal leadership training or mentorship. This suggest that there is a growing awareness of the importance of leadership development, and that organizations are increasingly investing in their employees' leadership development.

- **There is a diversity of views on what leadership means.** While there are some common themes, such as the importance of influence and motivation, respondents have a variety of perspectives on what leadership means to them. This suggest that there is no one-size fits-all approach to leadership, and that what matters most is that leaders are able to effectively achieve their goals.

- **Trust, integrity, and communication are seen as important traits for leaders.** Many respondents identified trust, integrity, and communication as important traits for leaders. This suggests that leaders need to be able to build relationships and inspire others in order to be successful.

- **Leadership training and mentorship are seen as valuable resources for developing leadership skills.** Many respondents believe that leadership training and mentorship can be valuable resources for developing leadership skills. This suggests that there are a variety of ways to develop leadership skills, and that the most effective approach will vary depending on the individual's learning style and experience.

Objectives were aligned with MSL needs based on historical comparisons of survey output

The survey results compare to some similar research that has been done in the past. For example, a study by the Center for Creative Leadership found that the most important traits for leaders are:

- **Vision:** The ability to see the big picture and articulate a compelling vision for the future.
- **Communication:** The ability to clearly and concisely communicate ideas and inspire others.
- **Decision-making:** The ability to make sound decisions under pressure.
- **Influence:** The ability to persuade others to follow your lead.
- **Relationship-building:** The ability to build and maintain strong relationships with others.

These traits are similar to the traits that were identified by the respondents in the survey. The survey also found that many respondents believe that leadership training and mentorship can be valuable resources for developing leadership skills. This is consistent with the findings of other studies, which have shown that leadership training can be an effective way to develop leadership skills.

This approach helped our leaders receive relevant feedback from the MSLs. As a result, the feedback and curriculum content was received as being directionally correct.

MID-PROGRAM SURVEY RESULTS

The mid-point survey results revealed specific leadership topics that our participants wanted to spend more time learning. Our generative AI produced the following feedback and analyses:

1. **Valuable sessions**
   a. MSLs found specific sessions more valuable, such as the track on developing people.
2. **Interest in Real-World Applications**
   a. MSLs expressed a desire for the leaders to share more real-world cases and active problem-solving.
3. **Positive group dynamic**
   a. MSLs described the group learning setting as respectful and very interactive.
   b. This suggested a positive learning environment was fostered.
4. **Commitment to continuous learning**
   a. MSLs expressed gratitude for having access to additional leadership learning resources.
   b. This suggested the MSLs experienced a dynamic and growth-oriented program.

As a result of these survey responses, the remaining half of the leadership curriculum was modified. Our leadership team invested more time and energy in providing real-world examples to the group as well as providing more learning resources and even implementing a post-curriculum mentoring program.

FINAL SURVEY RESULTS

We collected a final survey that gleaned the participants feedback on their entire leadership program experience. 5 of the 7 MSLs completed the program and participated in the final survey. The other 2 MSLs transitioned to external roles.

Despite the low number of participants in this pilot, we decided to integrate a basic machine learning algorithm that could help us predict whether future MSLs might be interested in participating in this leadership program. It is important to emphasize the small number of participants is not a representative sample, however, the machine learning principle we used can be scaled appropriately for larger teams and data sets.

We hope to show that a data-driven approach to traditional surveys using machine learning principles can yield insights into the value an internal leadership development program can have on future MSLs.

WHAT IS MACHINE LEARNING?

Logistic regression is a type of supervised machine learning algorithm that accomplishes binary classification tasks by predicting the probability of an outcome, event, or observation. The model delivers a binary outcome limited to two possible outcomes, such as yes/no or true/false (Kanade, 2022).

We used logistic regression to create a basic machine learning algorithm that could help our leadership team predict which future MSL would likely participate and benefit from our leadership program. This binary decision was based exclusively on the number of years they worked in the pharmaceutical industry.

We took this approach in order to simplify the model and to show the logic behind how machine learning could be used in conjunction with our generative AI results. It is more realistic to perform a multiclass classification approach that takes into account additional variables, but again, we are opting for simplicity in this example to highlight a potential use case of machine learning in medical affairs.

OUR APPROACH TO MACHINE LEARNING

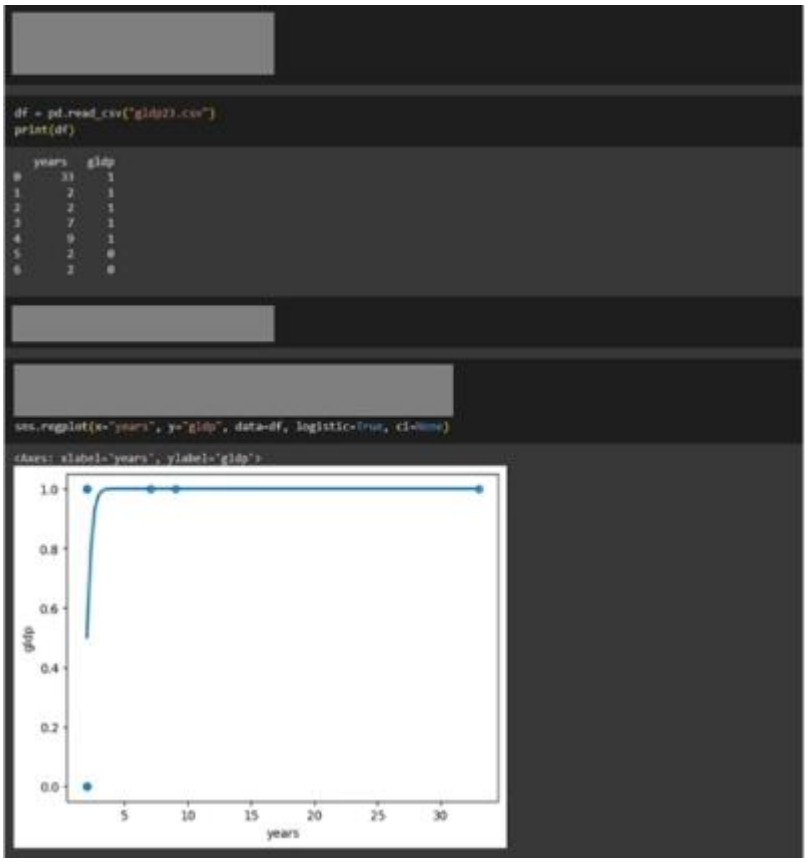
On the final survey results, the MSLs provided a final rating of whether they would recommend this program to their peers. The survey ratings were designated using the following values:

1 = Yes, I would recommend
0 = No, I would not recommend.

5 MSLs provided a rating of “1” and the 2 MSLs who did not complete the program were automatically entered as providing an entry of “0”.

We took these results and used our internal IDE to perform a logistical regression. Below is a snippet of our code and a visualization of our data. It is not important in this publication to understand the coding. However, the main takeaways are as follows:

1. There are several numerical and scientific databases that are part of the machine learning toolkit that help analyze data (i.e., pandas, numpy).
2. Entering structured data, despite being small in size and dimension, will help in generating a supervised learning model that could be used to augment current decision-making processes.
3. Machine learning models need to be trained and tested on a dataset to ensure the model is doing an adequate job of generalizing the input data.
4. Output from machine learning still requires human interpretation and models need to go through additional validation and modification before it can serve a practical purpose.
5. The more data you have, the better model you can create. ML allows you to visualize the data and provides different ways to give structure to a vast data set.



The ‘years’ column of the dataset represents the number of years each MSL worked in the pharmaceutical industry.

The ‘gldp’ column represents whether each MSL would (value=1) or would not (value=0) recommend the leadership program to their peers.

A logistical regression can be plotted using the data from our survey results, thus serving as a helpful visual aid of the data.

Actual machine learning begins here. We essentially ‘train’ and ‘test’ the system on a small data set and see how the system performs when we give it a separate entry.

It is important to note the small sample size we are working with will limit the predictive capacity of the machine learning algorithm we are configuring.

However, the same logic can be applied to a larger data set whereby we use a larger training set to ‘train’ the machine to make a prediction based on the variable we enter. In our case, ‘years’ worked.

```
model.score(X_test,y_test)

1.0

model.predict(np.array(5).reshape(1, -1))

/usr/local/lib/python3.10/dist-packages/sklearn/base.py:439:
  warnings.warn(
array([1])
```

Once the machine learning is complete, we can see that entering a random value of “5” years into the model produces a prediction of “1” w/n the “array([1])”.

This means an MSL with 5 years experience working in the pharmaceutical industry would recommend participating in our leadership development program. This result can also be checked on the graph above.

CONCLUSION

Our pilot Global Leadership Development Program was a success. The MSLs were exposed to a wide array of leadership topics that were customized to their unique learning preferences with the help of generative AI. Analysis of our survey results from generative AI revealed what leadership topics the MSLs were exposed to historically and thus, not interested in learning again. In addition, it provided insight into leadership topics of interest that were not initially part of the curriculum. This custom-tailored approach helped each MSL derive the most coveted leadership knowledge, hence improving their professional growth and development at our company.

Any MSL Leader that is looking to create an enhanced 1:1 coaching experience with their MSL team should explore the opportunities current AI technologies offer. Our approach helped in creating a more robust Global Leadership Development Program. The success of our pilot led us forward with another GLDP program offering in 2024, with an even larger MSL group. We anticipate this personalized MSL learning approach will not only improve MSL professional development, but perhaps even enhance long-term retention statistics across our medical affairs function.

Our approach to leveraging machine learning to predict the future success of our GLDP program will provide greater insight and utility as the number of MSL participants increase. We hope to use the model output as a quantitative measure to complement the plethora of qualitative data emerging from our survey. This data-driven approach has the potential to digitally transform our traditional methodologies of assessing value or ROI from different learning strategies.