





Confronting the life science diversity problem

How medical affairs teams can use technology to address diversity issues in the drug development lifecycle.

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Introduction

Our world is getting smaller. As technology makes it easier for us to connect with, share with, and understand one another, we're open to new perspectives and ways of looking at the world. At the same time, we're beginning to recognize how falling back on the same old voices, opinions, and perspectives fails to paint a full picture.

<u>Diversity</u> – by which we mean the inclusion of a broad, fair, representative range of people – has a strong moral and ethical imperative. But there are very real business incentives at play, too: a wider range of voices and perspectives means a wider range of insights and opportunities. Diversity encourages innovation and creativity, it allows companies to draw from a wider pool of talent, and it helps them understand a broader range of customers or patients. There's compelling evidence to suggest that the more a business embraces diversity, the more successful it becomes.

"In 2019, top-quartile companies [for ethnic diversity] outperformed those in the fourth quartile by 36 percent in profitability." - MCKINSEY

In this guide, we're going to explore whether there's a diversity problem within the drug development lifecycle, what can be done to address it, and what the industry stands to gain by doing so.

SOME QUICK DEFINITIONS:

- of a group or community.
- freedom from bias or favoritism.
- Inclusion means ensuring everyone is

Diversity refers to the demographic mix

Equity means 'fairness', or more specifically,

included, in a safe environment for all.



Where life science falls short



Many industries are challenging themselves to be more diverse and inclusive, starting with the boardroom and C-suite. Historically slow to change, the life science sector is no exception – and there's a perception across the industry that diversity (regardless of gender, race, ethnicity, or sexuality) remains lacking. A research study showed that most polled respondents think women and cultural/ethnic minorities are underrepresented at the most senior levels of their organizations, and many life science professionals also report having experienced discrimination at work.

But diversity in life science is not just about senior leadership. Representation amongst HCPs, experts, and patients is just as important – and there are gains to be made in these areas, too. It's here that medical affairs teams in particular can benefit from prioritizing a more diverse and inclusive approach to their work.

Working with KOLs, patients, and other experts

Medical affairs teams rely on the thought leaders' insights to drive strategic decisions. Traditionally, these thought leaders are established, respected healthcare professionals who publish in medical journals and speak at medical conferences. However, the recognized, established experts within a disease community tend to be small in number, so life science companies end up drawing from the same limited pool of voices for steering committees and advisory boards.

When the same old faces predominate, the industry isn't exposed to fresh ideas or new points of view and risks growing stagnant.

"Only 30% of global researchers are women." - HIT CONSULTANT



There are fresh voices out there. The lower barrier to entry presented by digital technologies means that digital opinion leaders tend to be a more diverse group than traditional key opinion leaders, and represent a range of backgrounds and perspectives. Digital opinion leaders can be researchers, junior doctors, or social media influencers. They can be patient advocates, or even patients themselves – and if you aren't engaging them via the traditional congress or publication scenes, they can be based practically anywhere in the world, from a diverse range of backgrounds.





For medical affairs teams, there are four primary areas of impact when it comes to prioritizing diversity and inclusion:

Ability to focus on results, not logistics. Instead of asking how many people you can afford to invite to an advisory board, ask how many people you need to provide insight that drives your strategy. of insight. People from different backgrounds with varied experiences bring new perspectives that can change the course of product development and patient care.

Increased volume, value, and variety

Improved processes. What could your team accomplish if you could plan and execute advisory boards in weeks rather than months or convene contracted KOLs in a matter of days?

Increased patient centricity. Adding more data points to your scientific process can transform what you believe to be true, positively impacting patients. In virtual settings, patients are comfortable, candid, and most importantly, included.

When the industry draws from a wider, more diverse range of experts, it can unlock fresh insights and new perspectives to help create commercial opportunities and enhance the patient experience. Continuing to rely on the same old faces runs the risk of stagnation Hierarchical structures are common in life science, where expert knowledge is highly valued and experience is key.



"Interdisciplinary healthcare groups increasingly face issues related to power and authority in the patient care process. Many of these issues stem from a tension between the historically entrenched hierarchy in healthcare organizations, and the growing pressure of collaborative models of care." - <u>SAGE JOURNALS</u>





These hierarchies can prevent people from speaking up – whether that means sharing their concerns, challenging opinions, or contributing to advisory boards, steering committees, and clinical trials. Individuals with important perspectives and opinions can be reluctant to speak in the presence of more senior colleagues, and research suggests that women and minority groups are particularly adversely affected by hierarchy bias.



Building a safe space where diverse voices can be heard is about creating a fair, equitable, inclusive workplace. And beyond simply 'doing the right thing', companies that open themselves up to the thoughts and perspectives of as many people as possible benefit from the full picture of any given topic – powering insight, agility, and innovation. Conversely, the opposite is also true. "Companies with above-average diversity produced a greater proportion of revenue from innovation (45% of total) than from companies with below average diversity (26%). This 19% innovation-related advantage translated into overall better financial performance." - FORBES

"Hierarchical leadership can have detrimental effects on healthcare outcomes, and alternatives must be explored." - NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION

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How to redress the balance

Above all else, an organization-wide desire to do better and enact positive change is required to enhance diversity, equity, and inclusion across the life science sector and within medical affairs specifically. But emerging digital technologies are also helping to make our world - particularly our industry - a smaller, more diverse place.

"Beyond a financial impact, a diverse team contributes to the personal growth of everybody within it, providing a variety of perspectives and experiences while reducing unconscious biases or negative stereotypes."

- PHARMAPHORUM

The COVID-19 pandemic accelerated the world's move to virtual spaces – particularly in the life science sector, where medical affairs teams needed a way to keep essential meetings going without compromising safety. We're now seeing that many patients, HCPs, and experts actually prefer virtual engagement and are reluctant to return to in-person meetings despite travel and face-to-face interaction opening up again.

According to a <u>Reuters survey</u>:

of medical affairs professionals said a virtual setting provided the ability to invite a more diverse/ global group of participants

Beyond safety and convenience, asynchronous virtual engagement can also help to ensure that everyone has a seat at the table and that all voices are heard. Here's how:

Global reach. Provided they have a device and an internet connection, anyone can participate virtually from almost any location, practically anywhere in the world. And by engaging asynchronously, teams can collaborate across timezones and schedules – allowing for more diverse and inclusive global sessions.

Translation. In-platform translation services allow individuals to participate in their native languages, ensuring everyone can join the discussion by eliminating the language barrier.

Anonymous engagement. Virtual engagement platforms allow teams to double-blind their sessions by anonymizing advisors and responses – effectively eliminating hierarchy bias. Anonymized platforms allow users to contribute without fear of judgment or other repercussions, resulting in higher engagement rates from a broader range of participants.

virtual interaction audiences

"A global organization... found that virtual work has helped break down geographic siloes. Pre-pandemic meetings only included those who could attend in person and thus were constrained by geography and room size. Now, in-person meetings include a virtual element so that key people can participate in the discussion regardless of physical location."

- MCKINSEY

Medical affairs teams have reported that virtual environments present a more fair and equitable platform for communication and collaboration. Patients and advisors can participate when they feel most capable of doing so, with the added confidence of anonymity and the opportunity to share with a single moderator - rather than a wider group. Those who are more reluctant to speak have a better opportunity to contribute at length without disclosing identifying or sensitive information.

Disease community awareness, expert identification, and analysis New digital technologies reveal that many disease communities are richer and more diverse than we might imagine. Where previously medical affairs teams may have turned to the pages of medical journals or lists of congress speakers for expert opinion, now network analytics tools offer a deeper dive into the true opinion leaders within a disease community.

Network analytics delves into various data sources - including scientific, treatment, and social media data - to build a comprehensive map of disease community stakeholders. Teams can identify the major players within their established networks and beyond, including rising stars, key scientists and practice leaders, and digital influencers. Rather than relying on their established networks or falling back on the loudest voices in the room, teams can draw on a broader, more nuanced, and more diverse range of experts from all over the world.

"Organizations must ensure that diverse voices are included, and the needs of diverse patient populations are taken into account. This means identifying healthcare providers (HCPs) who serve as external experts, recruiting participants for clinical studies, and selecting individuals for studying the genetic foundation of disease." - HIT CONSULTANT

Teams can use other digital tools to generate full value from HCP and expert interactions. Natural language processing (NLP) and sentiment analysis empower medical science liaisons to analyze field team observations to quickly understand what experts are talking about, and how they feel about those topics.

An NLP application can take text from countless HCP interactions, scan the reports, and identify trends far more quickly and efficiently than a highly-trained individual. Sentiment analysis, meanwhile, can parse that text to determine whether an HCP, patient, or other expert feels positive, negative, or neutral about a particular trend or topic.

 Sentiment Analysis using LSTM

"Product A has been well tolerated in younger infants, but older infants have had lots of safety scares. Families were scarred by seeing their children so sick, and HCP feels they can't get over this. Possible negative community feelings on Product A."

Concept Analysis using Medically trained Word2Vec Neural Network identifies additional concepts beyond keywords in text. Concepts: adolescence, families, impact Aspect Identification using Grammar Analysis.

Used together, network analytics, natural language processing, and sentiment analysis help paint a broader, more diverse picture of a disease community and enable medical affairs teams to better understand the conversations and relationships within it.

UNCONSCIOUS BIAS

While digital technology can help life science become a more diverse and inclusive industry, it's important not to think of it as a magic bullet. There's increasing evidence to suggest that technology tends to reflect the biases of those who develop it, or double down on the social injustices of the environment in which it was created – particularly where artificial intelligence applications are concerned.

"AI systems learn to make decisions based on training data, which can include biased human decisions or reflect historical or social inequities, even if sensitive variables such as gender, race, or sexual orientation are removed." - HARVARD BUSINESS REVIEW

This kind of unintended discrimination is known as unconscious bias. The presence of unconscious bias in technologies and in ourselves and our organizations makes it harder to achieve true diversity, equity, and inclusion – even with the best of intentions. For that reason, it's important to remember that technology does not have the power to fix these issues – only to support ongoing efforts within your organization.

Conclusion

Medical affairs teams can do their part to ensure a diverse, equitable, and inclusive future. Making these changes will not only ensure a fairer work and treatment environment for all but will also help to foster more innovative, progressive, and ultimately profitable businesses – all while improving patient outcomes.

While technology will not solve these issues, it can support and enhance diversity initiatives within medical affairs organizations by providing safe spaces where every voice can be heard and appreciated – by improving accessibility and visibility for underrepresented groups and by bringing fresh perspectives to light.

- <u>FORBES</u>

ABOUT WITHIN3

Within3 invented a better way for life science companies to get deeper insights and make faster decisions across the product development lifecycle. With the power to identify the right experts, effectively engage them, and quickly obtain actionable information, life science teams can close the insight gap and drive projects forward with confidence. Our insights management platform gives stakeholders the freedom to collaborate anytime, anywhere, on any device, plus practical tools to foster meaningful discussions, co-create and edit documentation, and rely on the power of Al to achieve faster and more accurate decision-making. With a dedicated client success team on every implementation, most Within3 projects achieve 100% stakeholder participation. To learn more and request a needs assessment and demo, visit www.within3.com.

