

Welcome!

The Metrics Evolution: From Taboo to Treasure

Disclaimer

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This presentation is for informational purposes only and is not intended as legal or regulatory advice.

Presenters



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Amgen

Educational Objectives

This session will provide a learning opportunity for our audience by:

- Providing an overview of the most relevant metrics to better communicate the value of Medical Affairs
- Describing COVID-related changes in Medical Affairs and their impact on metrics
- Learning new approaches to monitoring metrics more continuously and consistently over time

MAPS Resources on the Topic

Webinars

 Communicating the Value and Measuring Impact of Medical Affairs Functions – Medical Dashboards and KPIs

White Papers

- Mastering the Art of Leveraging Meaningful Metrics
- Communicating the Value of Medical Affairs
- Field Medical Metrics / KPIs Guidance Document

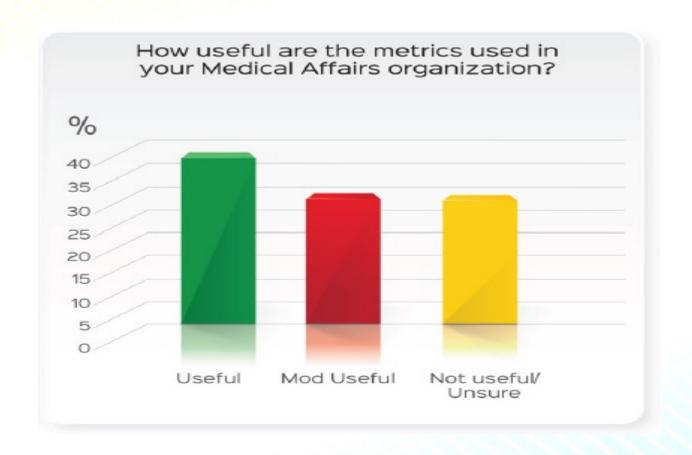
POLL

- Do you feel the Medical Affairs metrics used in your organization are meaningful?
 - 1. Yes
 - 2. No
 - 3. Somewhat
 - 4. We have not defined metrics

Evolving to Meaningful MA Metrics

Peter Piliero, MD

Usefulness of Currently Used MA Metrics



Evolution of MA Calls for Evolution of Metrics

- MA used to be viewed as an extension of Commercial and often operated as a service provider
 - Metrics were considered taboo because leaders often tried to link MA activity to commercial success and financial return on investment
- MA has evolved to be a strategic pillar alongside R&D and Commercial that ensures company products get to the right patients at the right time and ultimately provide benefit to the healthcare ecosystem
- But MA may be viewed as a "cost center", and thus we still find ourselves having to defend why we exist ("Why do we need MA?")
- Typical metrics are quantitative and activity-based but don't speak to the strategic impact and value that MA contributes internally and externally

Types of Metrics

- Goal-Based (Activity/Tactical)
 - Metrics that are related to the activities/tactics that need to take place to contribute to achieving the desired strategic outcome.
 - Quantitative
 - Related to specific activities and tactics, and therefore easier to measure
 - Ideally groups of goal-based metrics should be aligned to a given outcome-based metric
- Outcomes-Based (Impact/Value)
 - Metrics that measure whether the desired strategic outcome has been achieved
 - Qualitative
 - Should be linked to the desired outcomes described in the MA Strategic Plan
 - More difficult to define; least frequently used in MA today

Qualitative Outcome Based Metrics

- These should tell a story that are specific to the work done by MA to achieve an outcome that is linked to a MA strategic objective
- One effective approach utilizes this format
 - Situation
 - Action
 - Outcome

Outcome (Impact/Value) Metric Example

- **Situation:** There is a gap in knowledge on the link between immunity and nutrition. MA aims to close that gap through medical education.
- Action: The MA team identified an opportunity to sponsor and organize a symposium at a leading professional society meeting. This was included as a tactic in the annual MA plan (with associated budget). MA lead identified and engaged with 4 leading experts to participate
- Outcome: Symposium was attended by 560 HCPs and was the 12th most attended session. The experts are publishing a summary of the symposium in a leading journal.

Meaningful Metrics

- A meaningful metric details how closely a tactic or initiative delivers on its purpose as described in the MA Strategic Plan
- These metrics capture not only that something has been done but also its effect
- Metrics must be meaningful to the audience that is evaluating the metrics and outcomes
 - Audience includes cross-functional internal and external stakeholders, MA management, and senior organizational management
 - Determine for each audience what they value and how that can be measured
- Meaningful metrics can drive updating/evolving the MA strategy and actions throughout the course of the planning cycle

Leveraging Metrics in MA

The right to define strategies comes with the responsibility to measure results. In this way, solving the challenge of metrics is an essential step toward the progression of MA to function as a strategic partner and leader within the highest echelons of the organization. To achieve such, these metrics must have meaning, they must align with the Strategic Plan, and they must measure impact and influence future decision-making and outcomes. By becoming familiar not only with the menu of currently available metrics but also with the factors used to evaluate the design and purpose of metrics, an MA team can continue to evolve toward its strategic potential.

COVID-related changes in MA and impact on metrics

Riaz Abbas, MSc

We Measure That Matters

If you can't measure it,



you can't improve it.

@gapingvaid

Then Why is it So Hard?

Bit like clinical medicine ... it's about picking the right marker to measure/predict outcomes!!

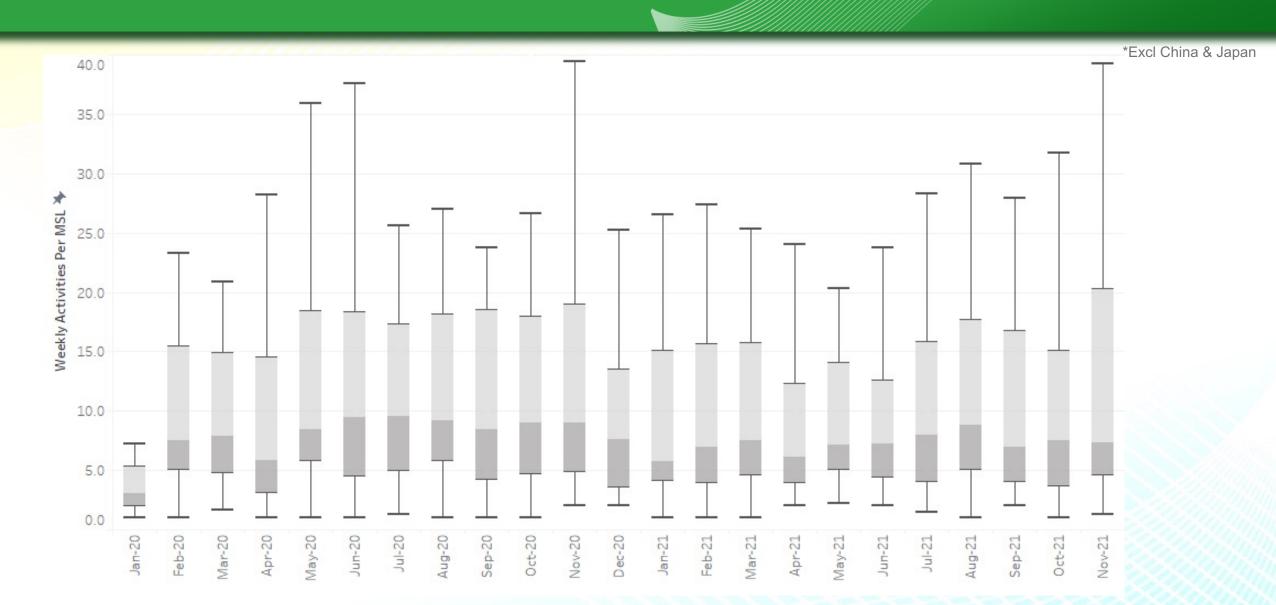
The Treasure Chest



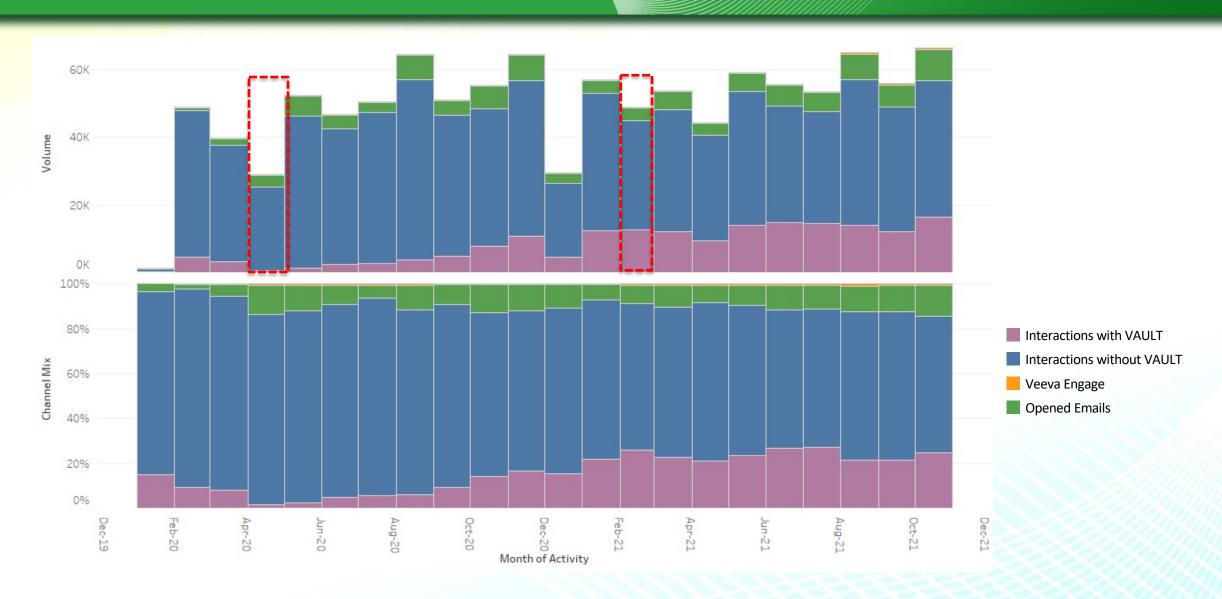
Let's look at

- 1. Field Medical
- 2. Clinical trials
- 3. Launch
- 4. Med Ed

MSL interactions over last 18 months in APAC*



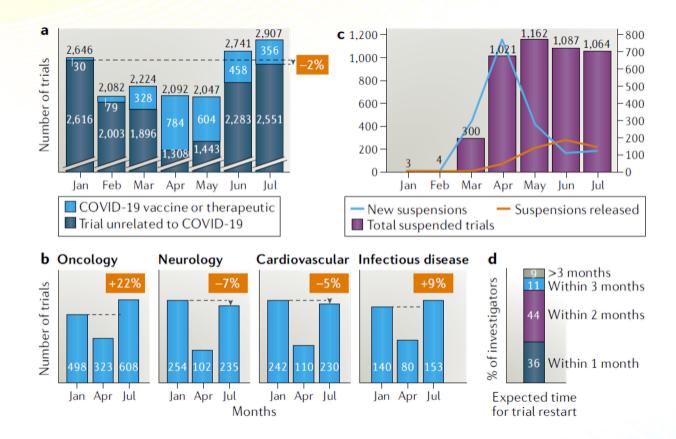
Increase in MSL interactions using digital channels



Duration of virtual MSL interactions in APAC is 40-45min/call



Clinical Trials and Evidence Generation



Clinical trial enrolment significantly affected in early part of the pandemic with a subsequent recovery

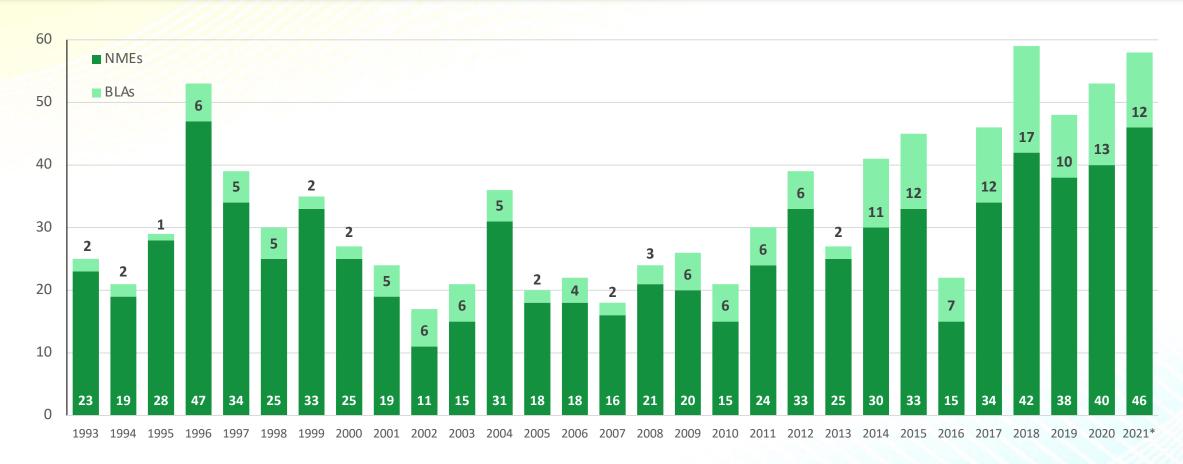
Overall metrics for clinical trials remains unchanged (site initiation, time to enrolment, retention, etc.)

Trials such as RECOVERY form a blueprint recruiting >10,000 patients in 176 hospitals in 2 months².

Digitization has enabled faster execution, measure & reporting → speed up filings and registration

^{1.} Xue JZ, Smietana K, Poda P, et al. Nat Rev: Drug Discov 2020;19:662-663

A record FDA approvals in 2020-21



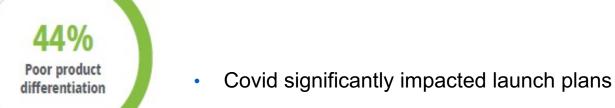
*As of 30 November 20212

Annual numbers of new molecular entities (NMEs) and biologics license applications (BLAs) approved by the FDA's Center for Drug Evaluation and Research (CDER). Approvals by the Center for Biologics Evaluation and Research (CBER), for products such as vaccines and gene therapies, are not included in this drug count.

- Mullard A. Nat Rev: Drug Discov 2021:20(2):85-90.
- Novel Drug Approvals FDA; accessed 07 Dec 2021

>30% of launches fail to meet analysts expectations



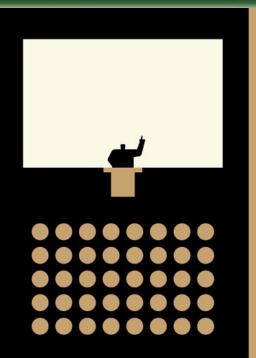


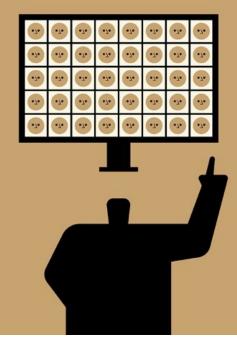
Medical Affairs played a leading strategic role in launch during the pandemic

Time to rethink launch outcomes and metrics

Need for improved launch metrics

Medical Education





- COVID accelerated digitized virtual medical education
- Transformation will continue with AR/XR
- A rethink on KPI and metrics
- Metrics at our fingertips thank you Digital



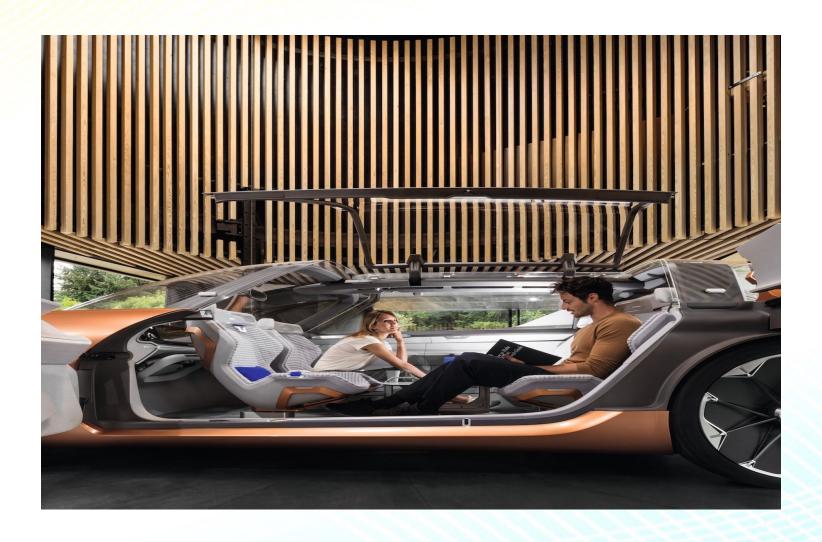
MPI (Medical Productivity Index): When Words and Numbers Count more than Pictures

Tim Mikhelashvili, PharmD

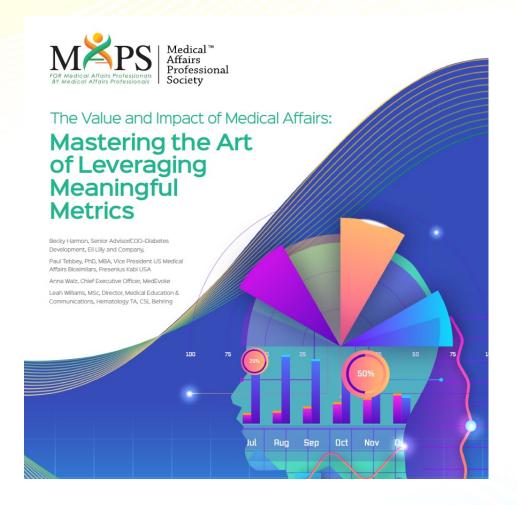
POLL

- What percentage of your final performance evaluation is based on behavior/culture?
 - 1. We do not include behaviors/culture in our metrics
 - 2. 1-25%
 - 3. 26-50%
 - 4. 51+%

The Pictures and Perceptions of Metrics



Using MEANING to elevate Metrics



CASE STUDY 1 – KOL Education KPI

- Reports 17 posters in 1 scientific conference > vs. any competitors
- **RESULT:** Failed to measure KOL education based on the content of the posters

CASE STUDY 2 – Field Medical Strategy

- FM interactions focused on educating on the product's mechanism of action. This did not drive adoption.
- **RESULT:** FM shifted their focus to Health Economic Outcomes Research (HEOR) data which drove understanding of which patients could benefit from the product

Why Words & Numbers vs. Pictures Alone?

CASE STUDY: SLOW, FAILING NEXT GENERATION PRODUCT LAUNCH

| MEDICAL AFFAIRS INITIATIVE | OUTCOME |
|---|---|
| 1. Phase 3 Comparative Pooled Analysis of NNH/NNT (Number Needed to Harm/Number Needed to Treat or Safety/Efficacy) ratio of next generation product vs market leader in functional bowel disease | MA authored late-breaking abstract @DDW2018 Poster singled out among all company presentations by investors, visitors, media (Bloomberg, SeekingAlpha, etc) Significant direct impact on business across the company MSL led National Sales Training "You have re-energized the company" Testimony across functions |
| 2. New study to test Uroguanylin (UG) deficiency for the first time in adult IBS-C and CIC patients | MA authored study of 100 IBS-C and CIC patients completed rapidly in a few months, presented as late-breaking abstract @DDW2018 New proof-of-concept pilot scientific messaging |
| 3. New "Auto-Drive" Medical-led Messaging Campaign proposed to Executive Management, Marketing, Medical and Field Commercial | Pilot messaging launched in the East U.S. Messaging + 2 initiatives above critical in payer formulary wins to increase patient access |

GAP IN METRICS RESEARCH

ABSOLUTE KPIS

EXTERNAL METRICS

Attendees

Publications

Patients enrolled

Number of KOLs interactions

KOL Meeting duration

INTERNAL METRICS

Learning and Development Courses Medical Insights Hands-on training / shadowing



RELATIVE RANKINGS







Awards Bonuses Course Tuition Career Progression Retention



Key Building Blocks of Metrics





Rules + in Tie-Breakers





Players



Judges



Audience



Timing



3 Steps to Improving Any Metric or Database

Data Translation

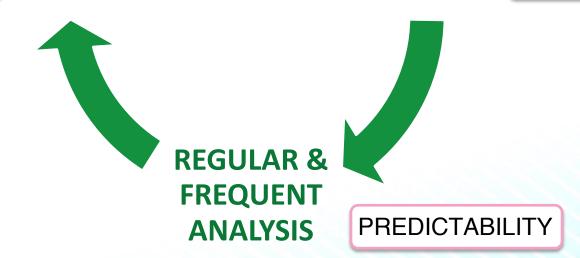
IMPROVEMENT

METRICS MANAGEMENT CYCLE



Data Integrity

RELEVANCE



More Data – More Accuracy

CASE STUDY – Medical Productivity Index (MPI)

PERFORMANCE (50% of total MPI score)

- Identify all possible MSL activities (routine + non-routine) and capture 4x / year
- Classify them accordingly into categories tailored to the team objectives and MA strategy / ecosystem
- Assign them different corresponding numeric values (points) and record them
- Distribute 5-question (1 minute) surveys to external KOL/stakeholders by a third-party
- Distribute 2 internal surveys of direct supervisor + 1 most relevant collaborator (inside/outside function)

BEHAVIOR (50% of total MPI score)

- Distribute 5 question surveys to external KOL/stakeholders by a third-party to assess behavior/culture
- Distribute 2 x 10-question surveys to direct supervisor + 1 most common cross-functional collaborator
- Rate changes in specific goals over time per territory or ecosystem
- Communicate MPI point leaderboard transparently on a quarterly basis
- Modify point values or categories as needed on quarterly basis to reflect changes in strategy
- <u>LinkedIn article https://bit.ly/mslmetrics</u>

MSL PERFORMANCE SCOREBOARD (50% of total MPI)

- 1. Total MSL Points Activity scores + Outcomes Tracker (qualitative)
- 2. Two Internal Surveys (1 min to complete, 4x/yr)
 - Direct Manager
 - Cross-functional project collaborator (non-teammate)
- 3. External KOL Surveys (1 min to complete, 4x/yr) by third-party

MPI - MSL Performance Points

| MSL ACTIVITY | POINTS | ACTIVITIES by TYPE / MONTH | | Q3 ACTIVITIES Q3 POINT | Q3 POINTS | ACTIVITIES by TYPE / | | MONTH Q4 ACTIVITI | Q4 ACTIVITIES | S Q4 POINTS | 2H 2020 ACTIVITIES | 2H 2020 POINTS 2020 ACTIVITIES 2020 TOTAL POINTS | | | | |
|---|--------|----------------------------|-----|------------------------|-----------|----------------------|-----|-------------------|---------------|-------------|--------------------|--|-----|-----|-----|-----|
| | | JUN | JUL | AUG | SEP | | | OCT | NOV | DEC | | | | | | |
| Scientific Exchange with 1 key stakeholder | 1 | 22 | 24 | 16 | 35 | 75 | 75 | 42 | 29 | 15 | 86 | 86 | 161 | 161 | 183 | 183 |
| 1-on-1 Formal Data Presentation | 2 | 5 | 5 | 3 | 2 | 10 | 20 | 6 | 8 | 3 | 17 | 34 | 27 | 54 | 32 | 64 |
| Group Scientific Exchange with >1 external stakeholder | 2 | 2 | 1 | 1 | 1 | 3 | 6 | 5 | 3 | 1 | 9 | 18 | 12 | 24 | 14 | 28 |
| MI Fulfillment | 2 | 3 | 9 | 4 | 14 | 27 | 54 | 8 | 5 | 3 | 16 | 32 | 43 | 86 | 46 | 92 |
| FAQ Lead | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Formal Data Presentation to a group <10 KOLs | 3 | 1 | 2 | 0 | 2 | 4 | 12 | 1 | 1 | 0 | 2 | 6 | 6 | 18 | 7 | 21 |
| Formal Data Presentation to a group >10 KOLs | 4 | 0 | 3 | 0 | 1 | 4 | 16 | 1 | 0 | 0 | 1 | 4 | 5 | 20 | 5 | 20 |
| Payer Formulary Presentation | 4 | 0 | 0 | 0 | 1 | 1 | 4 | 2 | 2 | 0 | 4 | 16 | 5 | 20 | 5 | 20 |
| Insights generated | 2 | 15 | 18 | 10 | 15 | 43 | 86 | 20 | 18 | 6 | 44 | 88 | 87 | 174 | 102 | 204 |
| Insight based Collaboration/Strategy | 4 | 1 | 1 | 1 | 5 | 7 | 28 | 3 | 2 | 1 | 6 | 24 | 13 | 52 | 14 | 56 |
| Speaker Training | 2 | 3 | 2 | 1 | 2 | 5 | 10 | 2 | 3 | 4 | 9 | 18 | 14 | 28 | 17 | 34 |
| Regional Scientific Conference Lead | 2 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 1 | 0 | 3 | 6 | 4 | 8 | 5 | 10 |
| National Scientific Conference Lead | 4 | 0 | 0 | 0 | 1 | 1 | 4 | 1 | 0 | 0 | 1 | 4 | 2 | 8 | 2 | 8 |
| Scientific Conference Executive Report Lead | 2 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 2 | 2 | 4 | 2 | 4 |
| Launch Lead | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HEOR Lead | 2 | 1 | 1 | 1 | 1 | 3 | 6 | 1 | 1 | 0 | 2 | 4 | 5 | 10 | 6 | 12 |
| CRM Lead | 2 | 1 | 1 | 1 | 1 | 3 | 6 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 4 | 8 |
| MSL Product Lead (Product 1, 2, 3, 4, etc) | 2 | 1 | 1 | 1 | 1 | 3 | 6 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 4 | 8 |
| MSL Slide/Resource Development Lead | 2 | 1 | 1 | 1 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 3 | 6 |
| MSL Business Development Lead | 2 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 2 |
| MSL Patient Advocacy Lead | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MSL Outcomes Lead | 2 | 1 | 1 | 1 | 1 | 3 | 6 | 1 | 1 | 1 | 3 | 6 | 6 | 12 | 7 | 14 |
| MSL Market Research Lead | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MSL Company Culture Lead | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Internal Product Administration Training | 4 | 0 | 0 | 0 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 | 4 |
| External Product Administration Training | 4 | 0 | 0 | 2 | 0 | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 2 | 8 |
| Regional MSL Roundtable Advisory Board Facilitation | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medical Affairs Advisory Board participation | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Company Sponsored Trial (CST) Site Discussion | 2 | 2 | 2 | 1 | 0 | 3 | 6 | 1 | 0 | 0 | 1 | 2 | 4 | 8 | 6 | 12 |
| Company Sponsored Trial (CST) Site Approval/Collaboration | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Investigator Initiated Research (IIR) Recommendation | 2 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 4 |
| Investigator Initiated Research (IIR) Approval | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Investigator Initiated Research (IIR) Publication | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MSL KOL Company Data Presentation/Authorship | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 4 | 1 | 4 | 1 | 4 |
| MSL KOL Led Internal Training | 4 | 1 | 1 | 2 | 0 | 3 | 12 | 1 | 0 | 0 | 1 | 4 | 4 | 16 | 5 | 20 |
| MSL Comments on an Abstract/Publication | 2 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 2 |
| MSL Authorship of a Poster/Abstract | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 | 1 | 5 | 1 | 5 |
| MSL Authorship of a Publication | 10 | 0 | 1 | 0 | 0 | 1 | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 1 | 10 |
| nternal Mentorship/Shadowing | 2 | 1 | 1 | 1 | 1 | 3 | 6 | 1 | 1 | 1 | 3 | 6 | 6 | 12 | 7 | 14 |
| MSL Unique Contribution/Collaboration | 2 | 1 | 3 | 1 | 5 | 9 | 18 | 1 | 2 | 1 | 4 | 8 | 13 | 26 | | 28 |
| TOTALS | | 65 | 80 | 48 | 93 | 221 | 417 | 102 | 77 | 36 | 215 | 377 | 436 | 794 | 501 | 907 |

MPI: Quantifying non-CRM MSL Outcomes

| | А | В |
|---|---------------------|--|
| 1 | PARAMETER | <u>DEFINITION</u> |
| | | Any routine, recurrent, or on-demand activity that involves TEACHING or LEARNING information or techniques with another |
| 2 | MSL OUTCOME | INTERNAL or EXTERNAL stakeholder that leads to a CHANGE in BEHAVIOR or STRATEGY |
| 3 | MSL LEAD ACTIVITY | A significant internal or external analysis, contribution or presentation in draft or final form occuring on a RECURRING basis |
| | | |
| 4 | MSL SPECIAL PROJECT | A significant internal or external analysis, contribution or presentation in draft or final form occuring on an AD-HOC, ONE-TIME basis |
| | | A unique contribution of working across Medical Affairs and other teams, functions, and various sets of external stakeholders as a |
| 5 | MSL COLLABORATION | part of the ROUTINE responsibilities |
| | | 1. ONLY enter activities with SIGNIFICANT PARTICIPATION, PRESENTATION of information or EXCHANGE that leads to teaching or |
| 6 | ENTRY GUIDANCE #1 | learning information relevant to the company NOT already captured in VEEVA. |
| | | 2. Limit LEAD, SPECIAL PROJECT, AND COLLABORATION entries to 1 per each UNIQUE TYPE of Activity PER MONTH. Examples. |
| | | Multiple different clinical trial site involvement would warrant corresponding, multiple entries per month. Each TYPE of LEAD Activity |
| 7 | ENTRY GUIDANCE #2 | would only require a single entry per month with ample space for input in the open-ended text in the "Details" column |
| 4 | DEFINITIONS 2020 | Sheet1 Sheet2 Sheet3 (+) |

MSL BEHAVIOR SCOREBOARD (50% OF TOTAL MPI)

1. EXTERNAL SURVEYS

 5 questions (1 minute to complete) to external KOL/stakeholders by a third-party to assess behavior 4x/yr

2. TWO INTERNAL SURVEYS

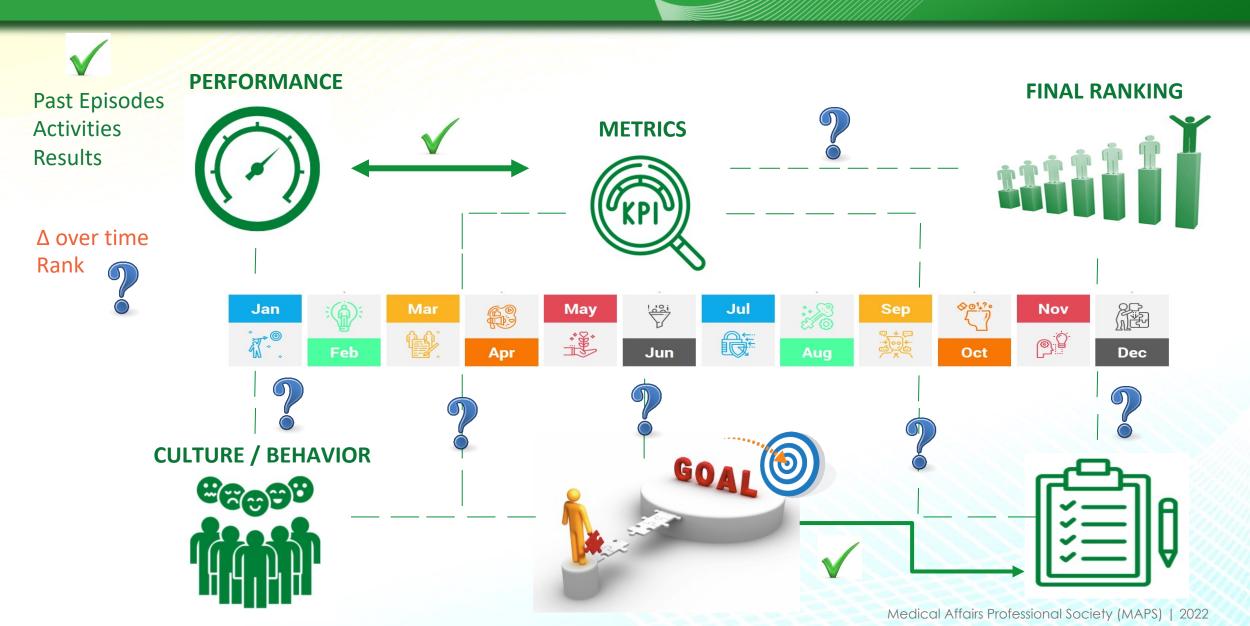
 2 x 10-question surveys (1 minute) of direct supervisor + 1 most common cross-functional collaborator 4x/yr

MPI FINAL SCORE: Ultimate Accountability

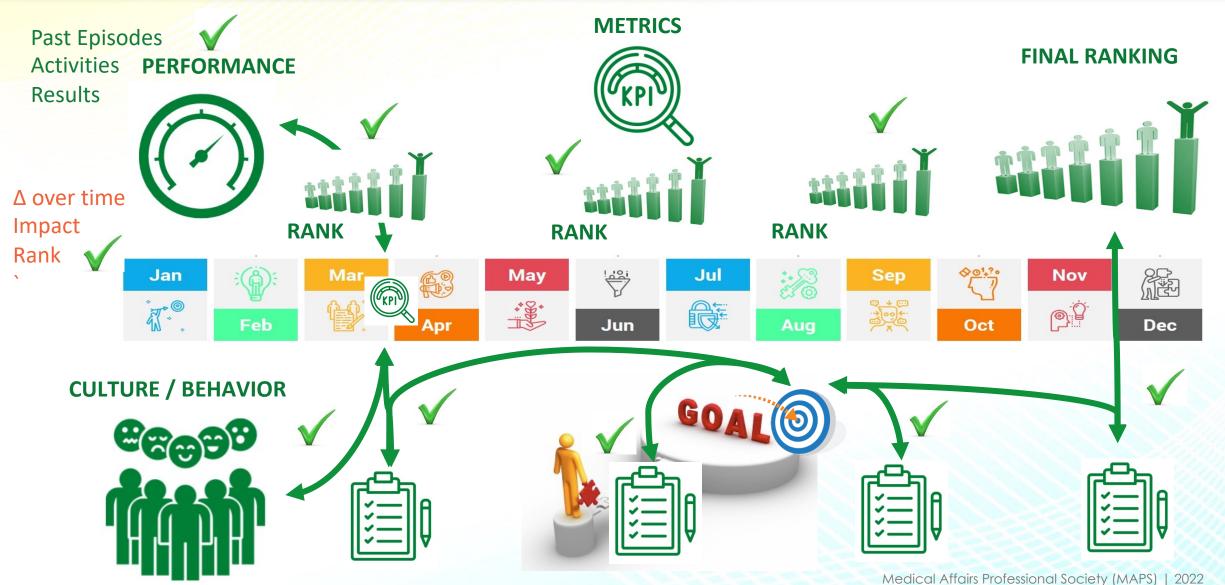
| | Q1 | | | | | | | |
|---|-------|-------|---------|---------|--|--|--|--|
| TOTAL SCORE | MSL#1 | MSL#2 | MSL#3 | MSL#4 | | | | |
| PERFORMANCE SCORE (Average) | 48 | 42 | 39 | 40 | | | | |
| A. PERFORMANCE MSL RANK POINTS - If MSL Ranks #1 in team of 4 = 4 points; if MSL ranks #2 = 3 points, etc. | 4 | 3 | 1 | 2 | | | | |
| BEHAVIOR SCORE (Average) | 40 | 49 | 45 | 44 | | | | |
| B. BEHAVIOR MSL RANK POINTSIf MSL Ranks #1 in team of 4 = 4 points;If MSL ranks #2 = 3 points, etc. | 1 | 4 | 3 | 2 | | | | |
| AVERAGE MSL RANK POINTS (A + B) / 2 | 2.5 | 3.5 | 2 | 2 | | | | |
| FINAL MSL RANK | 2 | 1 | 3 (tie) | 3 (tie) | | | | |

Note: Optional - normalize all items (e.g. to a maximum of 50 points and average), or rank them

How We Measure + Communicate KPIs Today



The Future of Medical Affairs Metrics



Medical Productivity Index (MPI): Key Highlights

- Quantify + Gamify MA Activities + Outcomes Transparently
- Distribute *Accountability* for *Internal* & *External* Metrics *Evenly*

Reward *Performance* + *Behavior* Equally in every MA function

More Design Upfront



Simpler Process Downstream

"Use Data and Metrics to Inspire a Future, not to Report the Past alone"

THINK FORWARD: From Competition to Collaboration

TWO TOP PERFORMERS AGREE TO



SHARE A GOLD MEDAL



Would You Share an Olympic Gold Medal?



LinkedIn Poll Yes 56% No 16% A contest needs a clear ending 24% What counts is the gold legacy 4%

25 votes • 1w left • Hide results