Collaborating on Standards: An Approach to Harmonizing Vaccine Regulatory Submissions

Presented by Sandra VanPelt Nguyen, Pfizer
on behalf of the Vaccine Industry Standards Group

Meet the Speaker

Sandy VanPelt Nguyen

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Organization: Pfizer

Sandy has been working in clinical research for over 20 years and has been involved with CDISC data standards almost as long. She is a lead for PHUSE's Optimizing the Use of Data Standards working group and participates in the CDISC Digital Health Technologies, Real World Data Lineage, and 360i teams. Sandy currently works at Pfizer as a Director in the Submissions and Standards team, focused on end-to-end data standards implementation, governance, and automation. She also participates in the Vaccine Industry Standards Group (VISG) and shares today's presentation on behalf of the group.

Disclaimer and Disclosures

- *The views and opinions expressed in this presentation are those of the author(s) and do not necessarily reflect the official policy or position of CDISC.*

- *The authors may hold shares and/or stock options in their respective companies.*

Agenda

1. Background
2. Overview of the Vaccines Industry Standards Group
3. Challenges
4. Impact of Collaboration
5. Future Goals
6. Conclusion

Background/Overview of the Group

Background

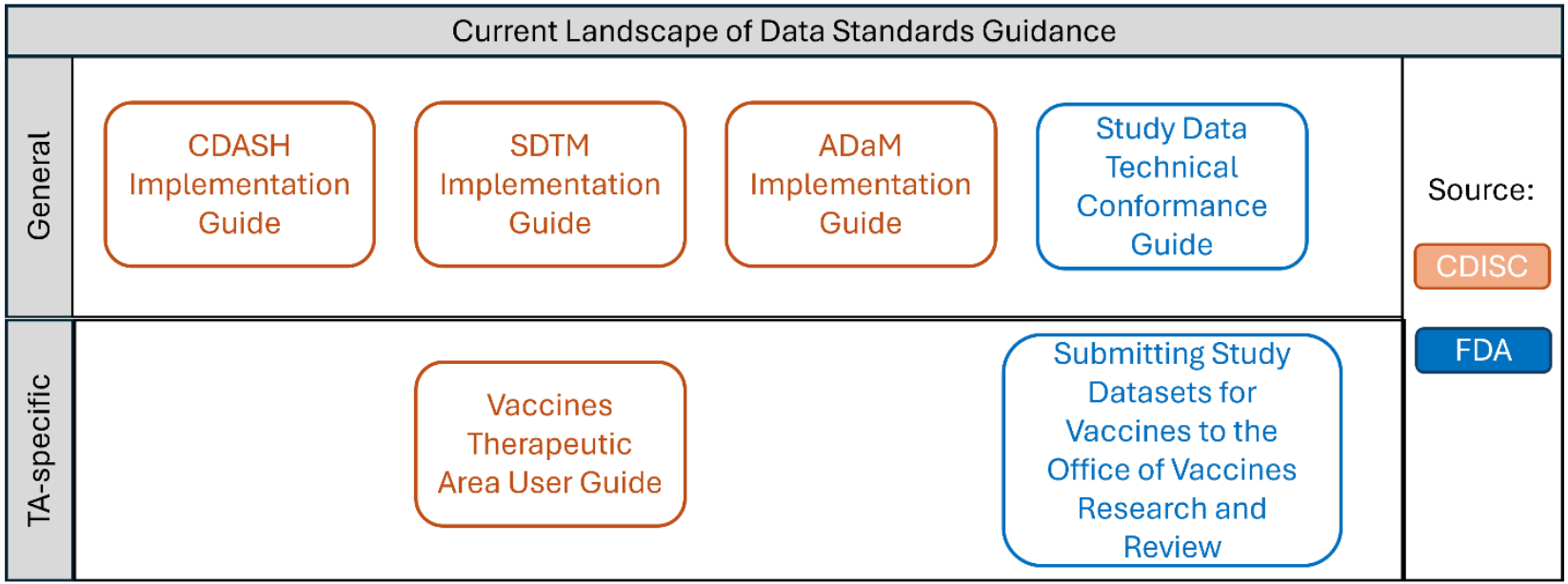
Vaccine Trial Considerations

- **Safety**: solicited reactogenicity events in addition to unsolicited AEs
- **Efficacy**: signs and symptoms + confirming diagnoses via laboratory testing
- **Immunogenicity**: body's response to a vaccine

Regulatory Guidance and Standards

- Importance of CDISC standards for consistency and transparency
- Health authorities may have additional requirements, e.g. CBER OVRR's Technical Specifications
- Inconsistences across guidances (e.g. CDISC vs OVRR)

Background


Current Landscape of Data Standards Guidance
General
CDASH Implementation Guide
SDTM Implementation Guide
ADaM Implementation Guide
Study Data Technical Conformance Guide
TA-specific
Vaccines Therapeutic Area User Guide
Submitting Study Datasets for Vaccines to the Office of Vaccines Research and Review
Source:
CDISC
FDA

Formation of Vaccines Industry Standards Group (VISG)

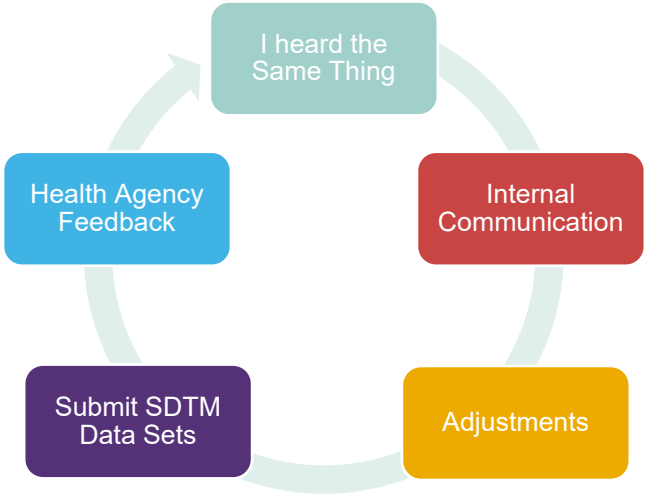
- Face-to-face meeting of several companies hosted by Merck in January 2020
- COVID-19 pandemic curbed follow-up discussions
- VISG then came together in Q1 2023 and began monthly meetings
- Multiple presentations shared at various forums:
  - PHUSE US Connect 2025
  - CDISC EU Interchange 2025
  - India CDISC Day 2025

VISG Collaboration Model

- All volunteer participation, anyone can join
- Led by a chairman
- Agenda based on topics shared by the organizations before the meeting
- Rotating notetaker
- Cloud based collaboration tools opened for cross sponsor use
- Scope includes data collection, SDTM, ADaM and Statistical Analysis

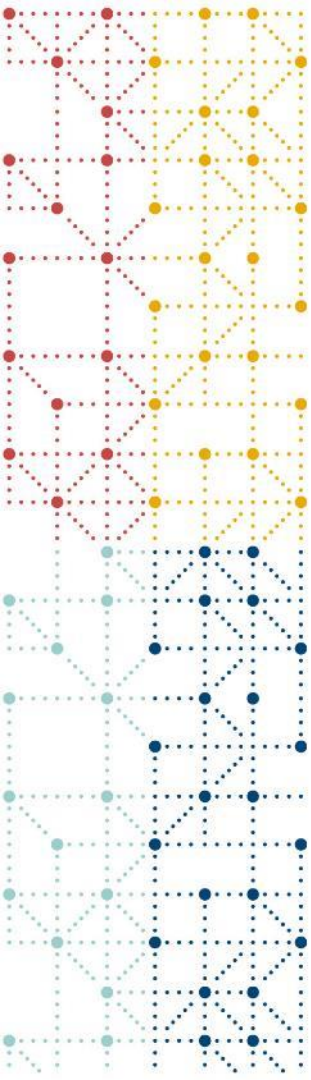
Objectives of the VISG

- **Share** challenges and feedback
- **Discuss** interpretation of feedback/guidance
- Provide **forum** to share and discuss implementation plans



Sample topics:

- *Collection and mapping of reactogenicity data*
- *Use of timing variables*
- *AE categorization*
- *Medically attended events*



Challenges

Common Challenges Across Industry

Due to discrepancies between the OVRR guidance/CBER feedback and CDISC standards, it is challenging to be CDISC-compliant and meet regulatory expectations.

Outdated guidance documents (CDISC & CBER) make it challenging to know what is expected for upcoming submissions.

Lack of clarity for mapping of certain data types leaves things open to interpretation and may result in data that does not meet regulatory expectations.

Impact of vaccine-specific requests on enterprise-wide (across TA) standards.

Method of communicating feedback make it challenging to determine whether it should be applied for all vaccine submissions or just specific studies.

Outdated Guidance (CDISC)

The CDISC Vaccines TAUG (last revised in April 2018) does not reflect current regulatory expectations.

Example:

- The CDISC Vaccines TAUG illustrates three possible models for reactogenicity data: flat, nested, or highly nested
- The OVRR guidance expects the flat model to be used for submitting reactogenicity data

Outdated Guidance (CBER)

Some CBER expectations have evolved over time but are not reflected in the OVRR guidance (last published Dec. 2019).

Example:

- The guidance indicates that reactogenicity events continuing beyond the protocol-defined assessment period should be reported in both the CE and AE domains in SDTM
- More recent feedback from CBER instructed that reactogenicity events should only be reported in the SDTM CE domain

Limited Guidance

The OVRR guidance does not provide detailed instructions on certain points, which leaves them open to interpretation and makes implementation challenging.

Example:

The guidance offers limited details on handling efficacy data, presenting only a basic scenario and no detailed examples of common industry situations

- No clear guidance on generating the CDECASE “clinical disease endpoint case” flag in SUPPDM for a trial with multiple primary efficacy endpoints
- No clear guidance on how to report confirmed versus suspected cases

Inconsistent Guidance

Inconsistency between regulatory guidance and CDISC standards

Example 1:

- CBER expects the variable ARMNRS (reason ARM is null) to be included in trials following SDTM IG version 3.2, while this variable was not introduced by CDISC until SDTM IG version 3.3
- Implementing this request introduces CDISC compliance issues and duplicates information that is already available in the DM domain (SCRNFAIL, etc.)

Inconsistent Guidance

Inconsistency between regulatory guidance and CDISC standards

Example 2:

- According to CDISC, the --DUR variable should only be used if the duration is collected and only when start and end dates/times are not collected
- The OVRR guidance expects the --DUR variable to be derived in SDTM for reactogenicity events in addition to providing start and end dates

Inconsistent Guidance

- CBER expectation for certain derived (and potentially complex) information to be included in SDTM creates a paradox for organizations striving to comply with submission guidelines while adhering to the core principles of SDTM
- The inclusion of derived data in SDTM not only deviates from its intended purpose but also introduces complexities in data collection and downstream processes (e.g. duplicated derivations in SDTM and ADaM)

- Examples:
  1. Derivation of “missed” e-diary entries, if vendor cannot provide.
  2. Derivation of “override” by investigator for reactogenicity. Participant-reported data has to be compared with investigator-reported data and any differences identified in SUPPCE.

Variations in Regulatory Feedback

- Variations in feedback make it difficult to discern whether it originates from individual reviewers or reflects an agency's preferences.
- Different sponsors learn of different submission expectations at different times, hindering effective implementation of standards across submissions for reviewers.
- It would be beneficial if agencies updated their guidance regularly to reflect current preferences, ensuring consistent application across all vaccine studies and submissions.
- It's also unclear if the OVRR guidance can be applied universally for submissions to all health authorities.

Impact and Future Goals

Practical Benefits for Member Organizations

Streamline submission processes
Proactively incorporate regulatory feedback
Reduce rework
Improve data quality and consistency
Enrichment of the collective knowledge base

Key Outcomes

Aligned interpretations of regulatory requirements & expectations
Consensus on best practices
Shared learning across companies - fosters a culture of continuous improvement
Shared insights from member companies - address potential issues before submission

By sharing knowledge, discussing practices, aligning interpretations, and evaluating outcomes, member organizations can critically evaluate their methodologies and explore innovative solutions to enhance operational processes.

Future Goals of VISG and areas for collaboration

Deepened Collaboration with Health Authorities and Standards Organizations

- Build stronger partnerships starting with **FDA/CBER** and **CDISC**
- Advocate for updated guidance to reflect current needs, starting with the Vaccines Therapeutic Area User Guide

Advocacy for Industry-Wide Adoption

- **Expand the VISG model** to other therapeutic areas
- Promote consistent submission standards and transparent communication

Blueprint for Broader Collaboration

Engagement with Health Authorities / Standards Organizations

- Develop a **dedicated communication channel** between all parties to discuss standards-level questions
- Present a **consolidated voice** for structured discussions, ensuring clarity in communications
- Highlight challenges and **provide input/feedback** for future standards/requirements
- Establish a **regular cadence of communication** to ensure alignment on expectations, and update guidance

Timeline and Planning

- Define a timeline for formal engagement with agencies, including milestones for identifying key questions and concerns at the standards level, preparing a unified feedback document, scheduling roundtable discussions with regulators

Regulatory Presence at Discussions

- Advocate for regulatory participation in VISG discussions to foster transparency and mutual understanding
- Create a feedback loop where regulators can address collective questions quickly and effectively

Conclusion

VISG as a Model for Success

- Open sharing and discussions on feedback and challenges
- Help organizations to proactively anticipate and address regulatory feedback
- Accelerate timelines while maintaining data quality and compliance
- Win-Win collaboration for organizations and health authorities

Call to Action

- Expand collaboration with health authorities and standards organizations
- Update of the CDISC Vaccines Therapeutic Area User Guide
- Foster partnerships to advance global public health goals

Thank You!

Contact Sandy at sandra.vanpeltnguyen@pfizer.com for more information.