



# Preparing for SEND

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## Overview

- Introduction
- FDA Data Standards Catalog
- Origin of SEND
  - Process considerations
  - High level differences SENDIG & SDTMIG
  - Changes in SENDIG v3.1
- SEND validation
- Other regulators
- Conclusion

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- Assign a coordinator to drive the process of evaluating
  - What is needed to implement SEND
  - How can we implement this in our organization



- Follow the CDISC SEND training as a starting point
- Create an implementation plan for organization



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## FDA Data Standards Catalog v5.1 (08-2-2018) - Supported and Required Standards

Data Exchange Standard	Supported Version	Supported Implementation Guide Version	Date Support Begins (MM/DD/YYYY)	Date Support Ends (MM/DD/YYYY)	Date Requirement Begins (MM/DD/YYYY)	Date Requirement Ends
Standard for Exchange of Nonclinical Data (SEND)	1.2	3.0	06/13/2011	03/15/2019 [1] 03/15/2020 [2]	12/17/2016 [1] 12/17/2017 [2]	03/15/2019 [1] 03/15/2020 [2]
SEND	1.5	3.1	08/21/2017		3/15/2019 [1] 3/15/2020 [2]	
Notes:						
[1]	For NDAs, ANDAs, and certain BLAs. See section II.A of the Providing Regulatory Submissions In Electronic Format — Standardized Study Data guidance document					
[2]	For certain INDs. See section II.A of the Providing Regulatory Submissions In Electronic Format — Standardized Study Data guidance document					



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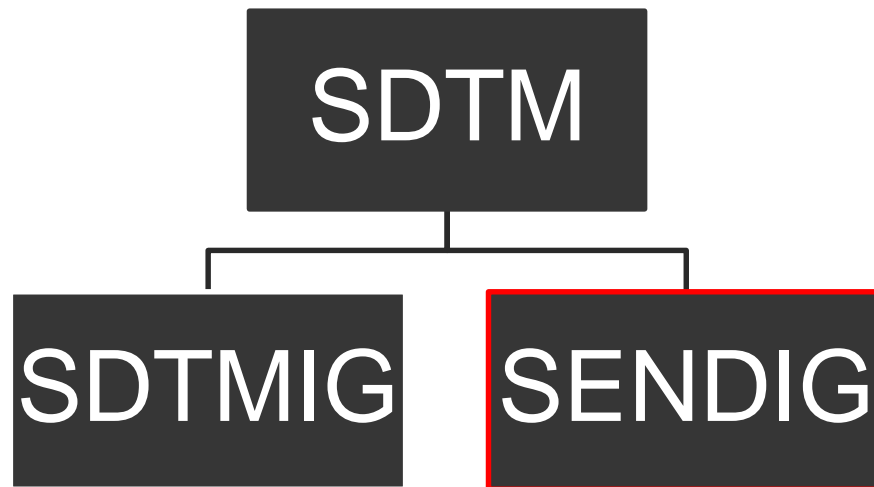
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- SEND finds its foundations in the SDTM standard

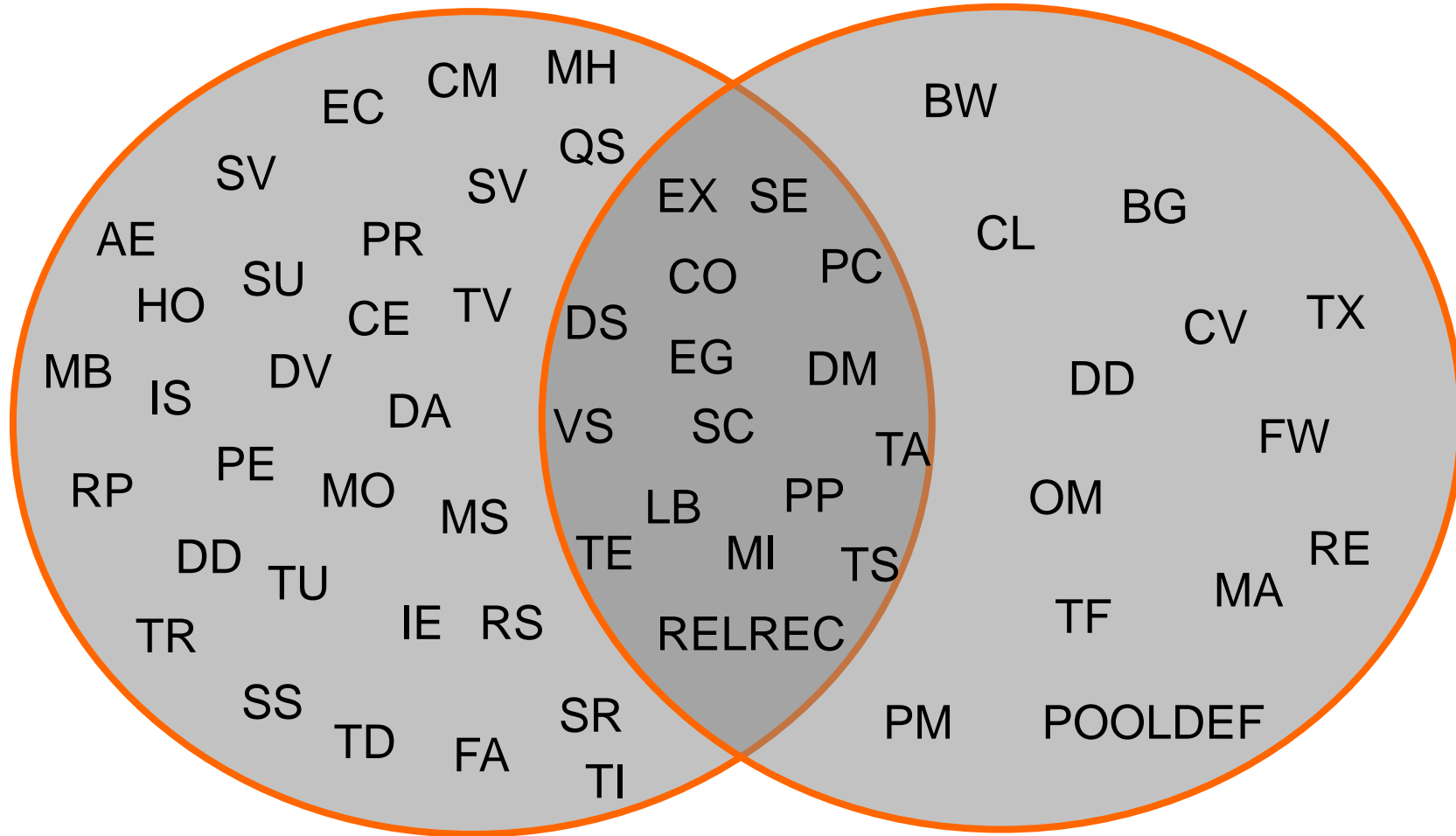


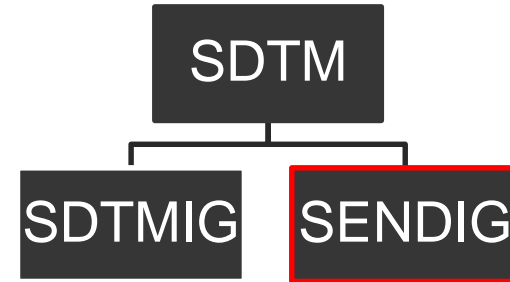
SDTM

SEND

Trial on humans

Study on animals





- Knowledge gained and some software tools built for SDTM can be used to a great extent
- You probably don't need to start from scratch. With modifications, some existing processes may be re-used
- Create a new library for SEND like you would create a new library for
  - new/upgraded SDTM versions
  - Client specific implementation of SDTM

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### ■ Conversion process

- Map, merge and convert source data (EDC, third party data, raw data files)
- Scheduling/follow-up complete conversion process
- Manage Metadata repository



### ■ Transfer of datasets (draft, interim, final)



### ■ Format of transferred datasets (XPT, SAS, Dataset-XML)



### ■ Creation of define metadata



### ■ Validation checks



### ■ Trial design tables



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## Between SENDIG &amp; SDTMIG

- Trial design
  - No TV, TI, TD
  - TX: trial sets
- Subject Pooling
  - POOLDEF: POOLID vs. USUBJID
- Tumor.xpt
- Example DM differences

## Between SENDIG & SDTMIG

- Example DM differences
- List available of SDTM variable that do not fit the SEND model

SEND - Demographics		SDTM - Demographics	
•STUDYID	• <b>AGETXT</b>	•STUDYID	
•DOMAIN	•AGEU	•DOMAIN	•AGEU
•USUBJID	•SEX	•USUBJID	•SEX
•SUBJID	• <b>SPECIES</b>	•SUBJID	
•RFSTDTC	• <b>STRAIN</b>	•RFSTDTC	
•RFENDTC	• <b>SBSTRAIN</b>	•RFENDTC	
•RFXSTDTC		•RFXSTDTC	• <b>RACE</b>
•RFXENDTC		•RFXENDTC	• <b>ETHNIC</b>
	•ARMCD	• <b>RFICDTC</b>	•ARMCD
	•ARM	• <b>RFPENDTC</b>	•ARM
		• <b>DTHDTC</b>	• <b>ACTARMCD</b>
•SITEID		• <b>DTHFL</b>	• <b>ACTARM</b>
		•SITEID	• <b>COUNTRY</b>
		• <b>INVID</b>	
		• <b>INVNAM</b>	
•BRTHDTC	• <b>SETCD</b>	•BRTHDTC	
•AGE		•AGE	

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## CHANGES IN SENDIG V3.1



- VISITDY = Permissible (not expected), use is not recommended, replaced by --NOMLBL, --NOMDY
- Two new domains for Safety Pharmacology studies have been added: Cardiovascular (CV) and Respiratory (RE)
- New FOCID variable added to several domains (EX, CL, MA, and MI)
- Use of SDTM v1.5 contains new variables to support SEND that will not be used in human clinical trials

SDTM v1.5

SENDIG  
v3.1

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- FDA has published business and validation rules which contains SDTM but also SEND specific rules  
**update:** in October 2018 FDA has published new validation rules including SEND v3.1
- **PINNACLE**<sup>21</sup> community version 2.2.0 only includes the FDA SEND v3.0 rules (depends on official rules published by CDISC, FDA or PMDA)

P21 announced the release on P21 community version 3.0 in January 2019, which will include the newly release FDA validation rules

P21 enterprise, all FDA Validator Rules are already available

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- At this moment SEND is an FDA requirement for certain submissions



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- Clinical Trial Advisory Group on clinical trial data formats (CTAG2) is working on advising the EMA on clinical data formats, where it is leaning toward CDISC standards



- As of 2016, PMDA has put forward a schedule for requiring SDTM on the clinical side and plans to explore the nonclinical side as well

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- Although not always technically required for submission, SEND has advantages in operational use
  - Transfer/collaboration between organizations: CRO, client, providers, sites, regulatory authorities...
  - Client warehousing
  - Opportunities for harmonised and standardised software tools



**SGS**

# BROAD **CLINICAL** RESEARCH **SOLUTIONS**



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**Questions?**

**Thank You!**

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**cdisc**