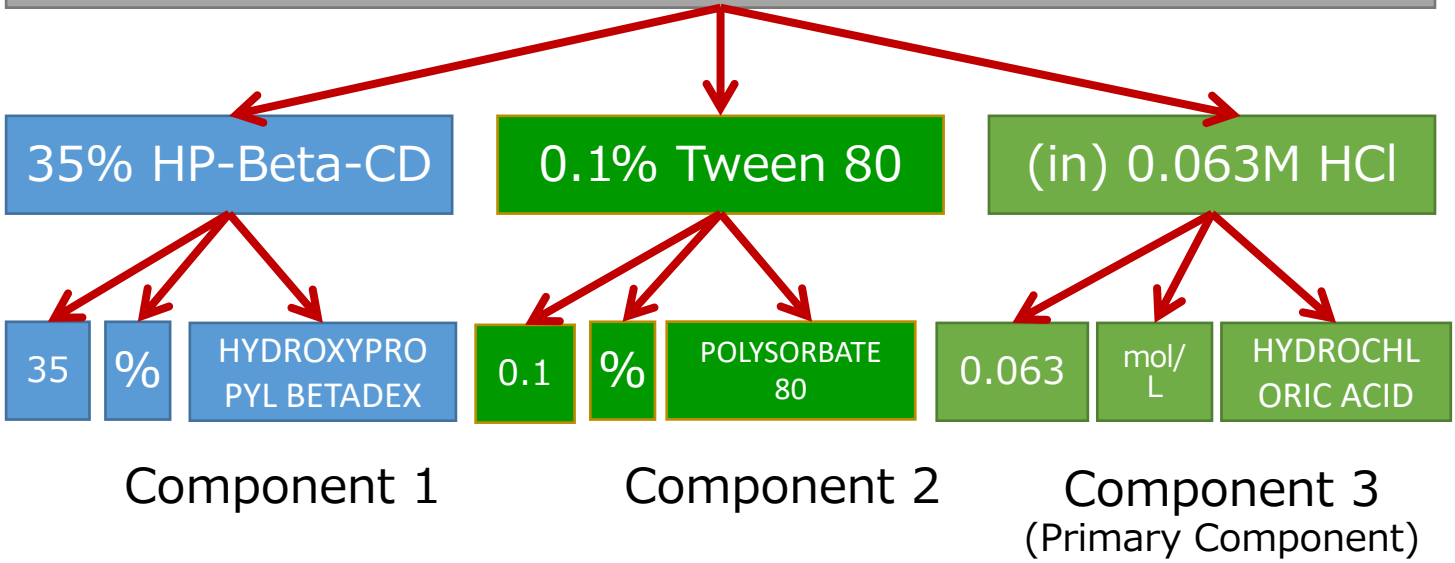


Abstract

Within PHUSE CSS, the Nonclinical Topics working group is running a project called “Harmonization of SEND Implementation to Enable Historical Control Data Analysis” as a collaboration between BioCelerate and PHUSE. The purpose of this effort is to recommend improvements to using SEND as a method to resolve the most problematic information that is required for common historical control data analysis. Within this project we have piloted several ways of exchanging details of treatment vehicle information using a survey.

EXTRTV and TRTV:

35% HP-Beta-CD, 0.1% Tween 80, in 0.063M HCl



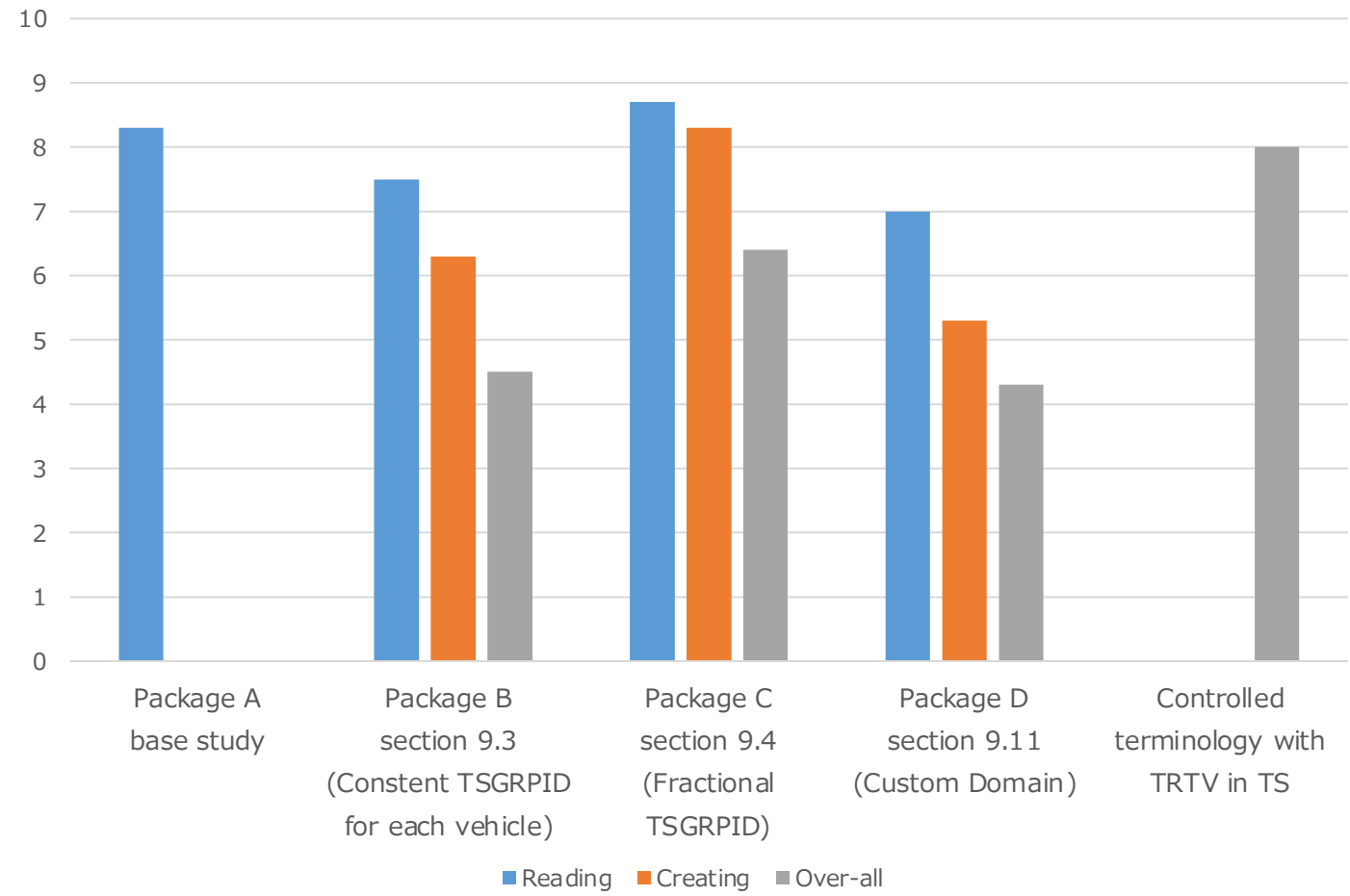
Solution Design Goals

1. Some studies have more than one vehicle; so, this proposal should also accommodate multiple vehicles in the same study.
2. The proposal should be able to accommodate additional attributes for components and additional attributes for mixtures to be defined in the future without causing a loss of functionality in software designed to implement this proposal.
3. The proposal must not violate any conformance rules of CDISC SEND v3.1 or SDTM v1.5.
4. Not known to conflict with CDISC's future direction.
5. Datasets that implement this proposal should load successfully into existing SEND software.
6. The proposal should be possible to implement using existing SEND creation software.

Approach

1. Prepared 9 alternatives
2. Discussed with CDISC SEND and GGG
3. Selected 3 for deeper evaluation
 1. Created datasets
 2. Public Survey
 1. Read the datasets
 2. Create similar datasets
 3. Best overall approach
4. Created script to determine potential success extracting meaning from TRTV
5. Drafted white paper with proposal

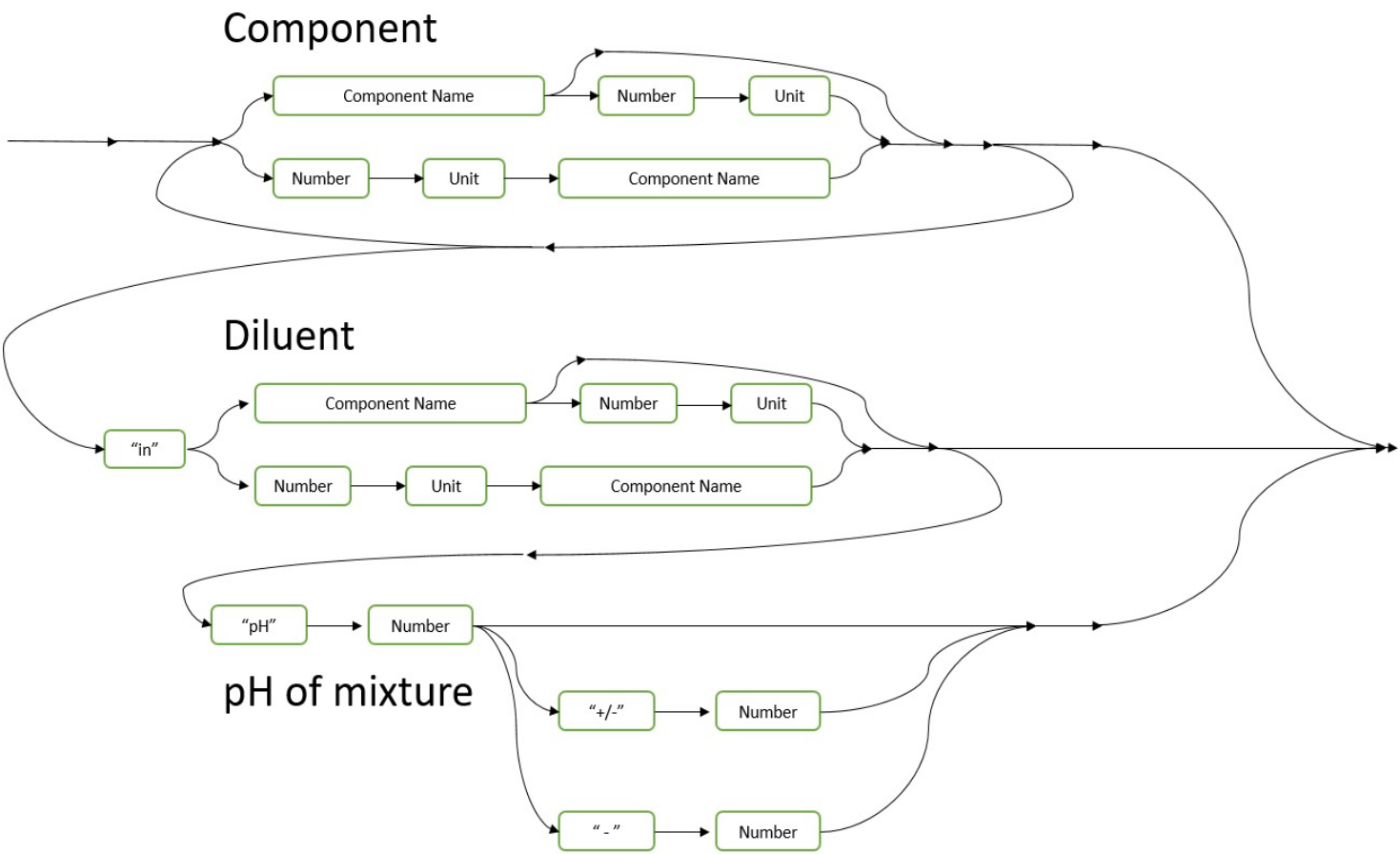
Survey Results



Recommendations / Success Rates

1. Dataset Preparation
 1. Continue to use TS parameter TRTV and EX variable EXTRTV.
 2. Use UNII display names for vehicle components and SEND Controlled Terminology for units.
 3. Provide concentrations of components when feasible.
2. Vehicle Analysis
 1. Continue to develop R script parseTRTV, available in PHUSE github repository, to extract vehicle components and concentrations from TRTV text strings. (Success >62% when tested against a large database of SEND datasets administered by FDA collaborators.)
3. Ask CDISC to consider project for the next SENDIG v3.2(?)
 - FULL SCOPE: To store each component (Concentration, Unit, Name) into separate variables or parameters.
 - MINIMUM SCOPE: To establish controlled terminology for vehicle component names for use within existing TRTV variable/parameter.

Parsing TRTV



Limitations / Future Work

- The concentration of components is assumed to be the concentration in the final solution. This may lead to incorrect tabulated output especially for some buffers.
- The script does not support a component described as “80% 25 mM citrate buffer”, so please supply values like “20 mM citrate buffer” instead.
- Component names that are not on the CT list will be missing from the script’s SEND-like table.

Acknowledgements

We greatly appreciate all the people who evaluated the datasets and participated in the survey.