Requirements Specification

# Requirements Specification: nmvalidate 0.0.0.9000

## Scope

The purpose of this document is to define specific criteria for each testing task. Testing shall be conducted in accordance with the requirements within this document. The Requirement Specifications ensure that each requirement is tested.

## User Story: SUM-S001 nm\_summary

As a user, I want a conveinent way to review high level attributes of various variables after completing a data assembly.

**Product risk**: High

**Requirements**

* GAT-R001: gather-flags outputs modified data and spec file when all flags provided
* GAT-R002: gather-flags modifies data and spec with appropriate messages
* SUM-R001: nm\_summary outputs an accurate summary of baseline continuous covariates
* SUM-R002: nm\_summary outputs an accurate summary of baseline categorical covariates
* SUM-R003: nm\_summary outputs an accurate summary of primary keys
* SUM-R004: nm\_summary outputs summaries in either tabular or figure format

**Tests**

| **Test ID** | **Test name** |
| --- | --- |
| NMV-SUM-001 | nm\_summary base cont covariates |
| NMV-SUM-002 | nm\_summary base cat covariates |
| NMV-SUM-003 | nm\_summary primary keys |
| NMV-SUM-004 | nm\_summary outputs figures: Baseline c |
| NMV-GAT-001 | gather\_flags standard case: Works with standard case |
| NMV-GAT-002 | gather\_flags special cases |

## User Story: VAL-S001 nm\_validate

As a user, I want to easily perform sanity checks of a data set following data assembly. I want the checks to provide a pass/fail for various variables and variable relationships.

**Product risk**: High

**Requirements**

* GAT-R001: gather-flags outputs modified data and spec file when all flags provided
* GAT-R002: gather-flags modifies data and spec with appropriate messages
* VAL-R001: nm\_validate returns appropriate results given different error on fail inputs
* VAL-R002: nm\_validate provides anticipated output when duplicates across id, time, primary\_keys fails
* VAL-R003: nm\_validate provides anticipated output when baseline covariates check fails
* VAL-R004: nm\_validate provides anticipated output when time-varying covariates check fails
* VAL-R005: nm\_validate outputs all failures when they occur
* VAL-R006: nm\_validate prints results in console consistently for all potential outcomes
* VAL-R007: nm\_validate prints multiple failures

**Tests**

| **Test ID** | **Test name** |
| --- | --- |
| NMV-VAL-001 | nm\_validate standard case: Works with no failures |
| NMV-VAL-002 | nm\_validate works with failure on test 1 |
| NMV-VAL-003 | nm\_validate works with failure on test 2 |
| NMV-VAL-004 | nm\_validate works with failure on test 4: Missing time varying covariates |
| NMV-VAL-005 | nm\_validate works with multiple failures: Finds issues in data |
| NMV-VAL-006 | nm\_validate works with no failures, stop on failure |
| NMV-VAL-007 | nm\_validate works with multiple failures, stop on failure: Print |
| NMV-GAT-001 | gather\_flags standard case: Works with standard case |
| NMV-GAT-002 | gather\_flags special cases |

## Signature Page:

**Authored by:**

**Reviewed by:**

**Quality Assurance Approved by:**