**Extract Automation and Validation Automation SAS Program**

1. SAS Program Input and Output

**NCIRD Test Message Review**

**Data Dictionary – Extracted (xlsx)**

**Extract Automation Program**

**MMG AUTO**

**Manual Toggle Report (SAS Result)**

**Data Dictionary – to extract**

**Test Records Mapping Table (SAS** **Result)**

**Repeating Model Lookups**

**Validation Automation Program**

**Validation Report Test Record (xlsx)**

**Validation Report Untoggled Var (xlsx)**

1. Logics

Extract and Validation Automation SAS Program Logics.docx [here](file:///\\cdc.gov\project\NIP_Project_Store1\surveillance\NNDSS_Modernization_Initiative\MMG_Implementation\Jurisdiction%20Onboarding\Test%20Message%20Review\COVID%20Automation)

1. SAS program directory and workstation

Saved [here](file:///\\cdc.gov\project\NIP_Project_Store1\surveillance\NNDSS_Modernization_Initiative\MMG_Implementation\Jurisdiction%20Onboarding\Test%20Message%20Review)

1. Process

**Phase 1**: Extract Automation Program

Milestones: file import, data cleaning, non-repeating, M1G, M1.5GDT, M2G, M1F, M2F, M3G, file export

**Phase 2**: Validation Automation Program

Milestones:

1. 1st Starter Code to pull toggled data from NNAD
2. Process Non-repeating DE
3. Process M1G and 1.5GDT DE
4. Process M2G DE \*
5. Process M1F DE
6. Process M2F DE
7. Process M3G DE \*
8. Output the Non-M3G report
9. Compare and output the lab variable M3G report
10. Extracted the untoggled vars
11. 2nd Starter Code to pull untoggled data from NNAD
12. Output untoggled variables report
13. Peer Review

After we finish the code implementation, we can have peer review

1. Tips
2. Start from non-repeating DEs, M1G and M1.5GDT, M1.5GDT, M2G, M1F, M2F, M3G
3. Learn to print out each step to test
4. Learn to debug