# Dataset Integrity Check for the TEDDY Pub21 BLernmark Data Files 

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## 1 Standard Disclaimer

The intent of this DSIC is to provide confidence that the data distributed by the NIDDK repository is a true copy of the study data. Our intent is not to assess the integrity of the statistical analyses reported by study investigators. As with all statistical analyses of complex datasets, complete replication of a set of statistical results should not be expected in secondary analysis. This occurs for a number of reasons including differences in the handling of missing data, restrictions on cases included in samples for a particular analysis, software coding used to define complex variables, etc. Experience suggests that most discrepancies can ordinarily be resolved by consultation with the study data coordinating center (DCC), however this process is labor-intensive for both DCC and Repository staff. It is thus not our policy to resolve every discrepancy that is observed in an integrity check. Specifically, we do not attempt to resolve minor or inconsequential discrepancies with published results or discrepancies that involve complex analyses, unless NIDDK Repository staff suspect that the observed discrepancy suggests that the dataset may have been corrupted in storage, transmission, or processing by repository staff. We do, however, document in footnotes to the integrity check those instances in which our secondary analyses produced results that were not fully consistent with those reported in the target publication.

## 2 Study Background

The TEDDY study was designed to follow children with and without a family history of T1D to understand the environmental factors that contribute to the disease. Newborn children younger than 4 months were screened for high-risk HLA alleles, and those with qualifying haplotypes were eligible for follow-up. Information is collected on medical information (infections, medication, immunizations), exposure to dietary and other environmental factors, negative life events, family history, tap water, and measurements of psychological stress. Biospecimens, including blood, stool, urine, and nail clippings, are taken at baseline and follow-up study visits. The primary outcome measures include two endpoints-the first appearance of one or more islet cell autoantibodies (GADA, IAA, or IA-2A), confirmed at two consecutive visits, and development of T1D. The cohort will be followed for 15 years, or until the occurrence of one of the primary endpoints.

## 3 Archived Datasets

All the SAS data files, as provided by the Data Coordinating Center (DCC), are located in the TEDDY folder in the data package. For this replication, variables were taken from "pub21_blernmark_niddk" dataset.

## 4 Statistical Methods

Analyses were performed to duplicate results for the data published by Barbro Lernmark et al [1], published in J Clin Trials in 2012. To verify the integrity of the dataset, descriptive statistics of baseline characteristics were computed, by different country (Table B, Table C).

## 5 Results

Table $A$ lists the variables that were used in the replication and Table $B$ and $C$ compares the results calculated from the archived data file to the results published in Table 1 and Table 2. The results of the replication are similar to the published results.

## 6 Conclusions

The NIDDK repository is confident that the TEDDY Pub21 BLernmark data files to be distributed are a true copy of the study data.

## 7 References

1. Barbro Lernmark, Kristian Lynch, Lori Ballard, Judith Baxter, Roswith Roth, Tuula Simell and Suzanne Bennett Johnson, for the TEDDY Study Group. Reasons for Staying as a Participant in the Environmental Determinants of Diabetes in the Young (TEDDY) Longitudinal Study. Lernmark et al., J Clin Trials 2012, 2:2

Table A: Variables used to replicate Table 1 in the publication.

| Table Variable | Variables Used in Replication from the Table 1 <br> Dataset |
| :--- | :--- |
| Knowing someone is watching my child for <br> development of diabetes | watchingchildfordevelofdiabete |
| Helping science discover the causes of type 1 <br> diabetes | helpsciencediscovertype1diab |
| Getting my child's antibody results | gettingchildantibodyresults |
| Being seen by the same TEDDY staff at each visit | seenbysameteddystaff |
| Knowing my child might be able to participate in <br> future prevention studies | childparticipatefuturestudies |
| Total number of questionnaires | parent_answered |

Table B: Variables used to replicate Table 2 in the publication.

| Table Variable | Variables Used in Replication from the Table 2 <br> Dataset |
| :--- | :--- |
| Working with the TEDDY staff | WorkingWithTheTEDDYStaff |
| Getting questions answered | GettingMyQuestionsAnswered |
| Wait before visit starts | WaitBeforeTheTEDDYVisitStarts |
| Day or time visit is scheduled | DayTimeVisitScheduled |
| Time to complete a visit | TimeToCompleteVisit |
| Reminders for the visits | RemindersForTheTEDDYVisits |
| Transportation to the visit | TransportToTEDDYVisit |
| Parking for a TEDDY visit | ParkingForATEDDYVisit |

Table C: Comparison of values computed in integrity check to reference article Table 1 values: Most common reasons for staying in TEDDY (Reason as "Very Important by country"

| Reasons for staying in TEDDY | FINLAND [Manuscript] | FINLAND [DSIC] | FINLAND [Difference] | GERMANY <br> [Manuscript] | GERMANY [DSIC] | GERMANY <br> [Difference] | SWEDEN <br> [Manuscript] | SWEDEN [DSIC] | SWEDEN <br> [Difference] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Knowing someone is watching my child for development of diabetes (N) | 330 | 330 | 0 | 93 | 93 | 0 | 667 | 667 | 0 |
| Knowing someone is watching my child for development of diabetes (\%) | 61.5 | 61.7 | -0.2 | 73.2 | 73.228 | 0 | 81.1 | 81.4 | -0.3 |
| Helping science discover the causes of type 1 diabetes (N) | 299 | 299 | 0 | 75 | 75 | 0 | 593 | 593 | 0 |
| Helping science discover the causes of type 1 diabetes (\%) | 55.7 | 56.1 | -0.4 | 59.1 | 59.524 | -0.4 | 72.1 | 72.1 | 0 |
| Getting my child's antibody results (N) | 404 | 404 | 0 | 78 | 78 | 0 | 443 | 443 | 0 |
| Getting my child's antibody results (\%) | 75.2 | 75.5 | -0.3 | 61.4 | 61.905 | -0.5 | 53.9 | 54.0 | -0.1 |
| Being seen by the same TEDDY staff at each visit (N) | 231 | 231 | 0 | 26 | 26 | 0 | 503 | 503 | 0 |
| Being seen by the same TEDDY staff at each visit (\%) | 43 | 43.3 | -0.3 | 20.5 | 20.968 | -0.5 | 61.2 | 61.6 | -0.4 |
| Knowing my child might be able to participate in future prevention studies (N) | 139 | 139 | 0 | 49 | 49 | 0 | 461 | 461 | 0 |
| Knowing my child might be able to participate in future prevention studies (\%) | 25.9 | 26.1 | -0.2 | 38.6 | 39.2 | -0.6 | 56.1 | 56.2 | -0.1 |
| Total number of questionnaires ( N ) | 537 | 537 | 0 | 127 | 127 | 0 | 822 | 822 | 0 |


| Reasons for staying in TEDDY |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Table D: Comparison of values computed in integrity check to reference article Table 2 values: Respondent satisfaction with different components of TEDDY study by country

| Reasons for satisfaction with different components of the TEDDY study by country | All <br> [Manuscript] | All [DSIC] | All [Difference] | FINLAND <br> [Manuscript] | FINLAND [DSIC] | FINLAND [DSIC] | SWEDEN [Manuscript] | SWEDEN [DSIC] | SWEDEN <br> [Difference] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working with the TEDDY staff |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 1818 | 1818 | 0 | 514 | 514 | 0 | 806 | 806 | 0 |
| Works Great/ Not a problem (\%) | 97.5 | 97.5 | 0 | 96.1 | 96.1 | 0 | 98.7 | 98.7 | 0 |
| Works good most of the time (N) | 43 | 43 | 0 | 20 | 20 | 0 | 9 | 9 | 0 |
| Works good most of the time (\%) | 2.3 | 2.3 | 0 | 3.7 | 3.7 | 0 | 1.1 | 1.1 | 0 |
| Needs Improvement (N) | 3 | 3 | 0 | 1 | 1 | 0 | 2 | 2 | 0 |
| Needs Improvement (\%) | 0.2 | 0.2 | 0 | 0.2 | 0.2 | 0 | 0.2 | 0.2 | 0 |
| Getting questions answered |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 1757 | 1757 | 0 | 495 | 495 | 0 | 764 | 764 | 0 |
| Works Great/ Not a problem (\%) | 94.4 | 94.4 | 0 | 92.9 | 92.9 | 0 | 93.5 | 93.5 | 0 |
| Works good most of the time (N) | 99 | 99 | 0 | 35 | 35 | 0 | 52 | 52 | 0 |
| Works good most of the time (\%) | 5.3 | 5.3 | 0 | 6.6 | 6.6 | 0 | 6.4 | 6.4 | 0 |
| Needs Improvement (N) | 5 | 5 | 0 | 3 | 3 | 0 | 1 | 1 | 0 |
| Needs Improvement (\%) | 0.3 | 0.3 | 0 | 0.6 | 0.6 | 0 | 0.1 | 0.1 | 0 |
| Wait before visit starts |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 1737 | 1737 | 0 | 487 | 487 | 0 | 794 | 794 | 0 |
| Works Great/ Not a problem (\%) | 93.5 | 93.5 | 0 | 91.4 | 91.4 | 0 | 97.2 | 97.2 | 0 |
| Works good most of the time (N) | 113 | 113 | 0 | 45 | 45 | 0 | 21 | 21 | 0 |
| Works good most of the time (\%) | 6.1 | 6.1 | 0 | 8.4 | 8.4 | 0 | 2.6 | 2.6 | 0 |
| Needs Improvement (N) | 8 | 8 | 0 | 1 | 1 | 0 | 2 | 2 | 0 |
| Needs Improvement (\%) | 0.4 | 0.4 | 0 | 0.2 | 0.2 | 0 | 0.2 | 0.2 | 0 |
| Day or time visit is scheduled |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 1663 | 1663 | 0 | 430 | 430 | 0 | 752 | 752 | 0 |


| Works Great/ Not a problem (\%) | 89.3 | 89.3 | 0 | 80.4 | 80.4 | 0 | 91.9 | 91.9 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Works good most of the time (N) | 192 | 192 | 0 | 102 | 102 | 0 | 64 | 64 | 0 |
| Works good most of the time (\%) | 10.3 | 10.3 | 0 | 19.1 | 19.1 | 0 | 7.8 | 7.8 | 0 |
| Needs Improvement (N) | 7 | 7 | 0 | 3 | 3 | 0 | 2 | 2 | 0 |
| Needs Improvement (\%) | 0.4 | 0.4 | 0 | 0.6 | 0.6 | 0 | 0.2 | 0.2 | 0 |
| Time to complete a visit |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 1584 | 1584 | 0 | 447 | 447 | 0 | 722 | 722 | 0 |
| Works Great/ Not a problem (\%) | 85.4 | 85.4 | 0 | 84 | 84.0 | 0 | 88.4 | 88.4 | 0 |
| Works good most of the time (N) | 252 | 252 | 0 | 81 | 81 | 0 | 94 | 94 | 0 |
| Works good most of the time (\%) | 13.6 | 13.6 | 0 | 15.2 | 15.2 | 0 | 11.5 | 11.5 | 0 |
| Needs Improvement (N) | 18 | 18 | 0 | 4 | 4 | 0 | 1 | 1 | 0 |
| Needs Improvement (\%) | 1 | 1.0 | 0 | 0.8 | 0.8 | 0 | 0.1 | 0.1 | 0 |
| Reminders for the visits |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 1386 | 1386 | 0 | 413 | 413 | 0 | 524 | 524 | 0 |
| Works Great/ Not a problem (\%) | 76.2 | 76.2 | 0 | 83.6 | 83.6 | 0 | 64.4 | 64.4 | 0 |
| Works good most of the time (N) | 336 | 336 | 0 | 45 | 45 | 0 | 245 | 245 | 0 |
| Works good most of the time (\%) | 18.5 | 18.5 | 0 | 9.1 | 9.1 | 0 | 30.1 | 30.1 | 0 |
| Needs Improvement (N) | 97 | 97 | 0 | 36 | 36 | 0 | 45 | 45 | 0 |
| Needs Improvement (\%) | 5.3 | 5.3 | 0 | 7.3 | 7.3 | 0 | 5.5 | 5.5 | 0 |
| Transportation to the visit |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 1384 | 1384 | 0 | 379 | 379 | 0 | 616 | 616 | 0 |
| Works Great/ Not a problem (\%) | 74.7 | 74.7 | 0 | 70.8 | 70.8 | 0 | 75.5 | 75.5 | 0 |
| Works good most of the time (N) | 431 | 431 | 0 | 139 | 139 | 0 | 193 | 193 | 0 |
| Works good most of the time (\%) | 23.3 | 23.3 | 0 | 26 | 26.0 | 0 | 23.7 | 23.7 | 0 |
| Needs Improvement (N) | 37 | 37 | 0 | 17 | 17 | 0 | 7 | 7 | 0 |
| Needs Improvement (\%) | 2 | 2 | 0 | 3.2 | 3.2 | 0 | 0.9 | 0.9 | 0 |
| Parking for a TEDDY visit |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 994 | 994 | 0 | 168 | 168 | 0 | 417 | 417 | 0 |
| Works Great/ Not a problem (\%) | 54.3 | 54.3 | 0 | 31.5 | 31.5 | 0 | 52.6 | 52.6 | 0 |


| Works good most of the time (N) | 593 | 593 | 0 | 238 | 238 | 0 | 280 | 280 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Works good most of the time (\%) | 32.4 | 32.4 | 0 | 44.7 | 44.7 | 0 | 35.3 | 35.3 | 0 |
| Needs Improvement (N) | 245 | 245 | 0 | 127 | 127 | 0 | 96 | 96 | 0 |
| Needs Improvement (\%) | 13.4 | 13.4 | 0 | 23.8 | 23.8 | 0 | 12.1 | 12.1 | 0 |
| Reasons for satisfaction with different components of the TEDDY study by country | US <br> [Manuscript] | US [DSIC] | US <br> [Difference] |  |  |  |  |  |  |
| Working with the TEDDY staff |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 498 | 498 | 0 |  |  |  |  |  |  |
| Works Great/ Not a problem (\%) | 97.2 | 97.3 | -0.1 |  |  |  |  |  |  |
| Works good most of the time (N) | 14 | 14 | 0 |  |  |  |  |  |  |
| Works good most of the time (\%) | 2.7 | 2.7 | 0 |  |  |  |  |  |  |
| Needs Improvement (N) | 0 | 0 | 0 |  |  |  |  |  |  |
| Needs Improvement (\%) | 0 | 0 | 0 |  |  |  |  |  |  |
| Getting questions answered |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 498 | 498 | 0 |  |  |  |  |  |  |
| Works Great/ Not a problem (\%) | 97.5 | 97.5 | 0 |  |  |  |  |  |  |
| Works good most of the time (N) | 12 | 12 | 0 |  |  |  |  |  |  |
| Works good most of the time (\%) | 2.3 | 2.3 | 0 |  |  |  |  |  |  |
| Needs Improvement (N) | 1 | 1 | 0 |  |  |  |  |  |  |
| Needs Improvement (\%) | 0.2 | 0.2 | 0 |  |  |  |  |  |  |
| Wait before visit starts |  |  |  |  |  |  |  |  |  |
| Works Great/ Not a problem (N) | 456 | 456 | 0 |  |  |  |  |  |  |
| Works Great/ Not a problem (\%) | 89.8 | 89.8 | 0 |  |  |  |  |  |  |
| Works good most of the time (N) | 47 | 47 | 0 |  |  |  |  |  |  |
| Works good most of the time (\%) | 9.3 | 9.3 | 0 |  |  |  |  |  |  |
| Needs Improvement (N) | 5 | 5 | 0 |  |  |  |  |  |  |
| Needs Improvement (\%) | 1 | 1 | 0 |  |  |  |  |  |  |
| Day or time visit is scheduled |  |  |  |  |  |  |  |  |  |


| Works Great/ Not a problem (N) | 481 | 481 | 0 |
| :---: | :---: | :---: | :---: |
| Works Great/ Not a problem (\%) | 94.5 | 94.5 | 0 |
| Works good most of the time (N) | 26 | 26 | 0 |
| Works good most of the time (\%) | 5.1 | 5.1 | 0 |
| Needs Improvement (N) | 2 | 2 | 0 |
| Needs Improvement (\%) | 0.4 | 0.4 | 0 |
| Time to complete a visit |  |  |  |
| Works Great/ Not a problem (N) | 415 | 415 | 0 |
| Works Great/ Not a problem (\%) | 82.2 | 82.2 | 0 |
| Works good most of the time ( N ) | 77 | 77 | 0 |
| Works good most of the time (\%) | 15.2 | 15.2 | 0 |
| Needs Improvement (N) | 13 | 13 | 0 |
| Needs Improvement (\%) | 2.6 | 2.6 | 0 |
| Reminders for the visits |  |  |  |
| Works Great/ Not a problem (N) | 449 | 449 | 0 |
| Works Great/ Not a problem (\%) | 87.9 | 87.9 | 0 |
| Works good most of the time (N) | 46 | 46 | 0 |
| Works good most of the time (\%) | 9 | 9.0 | 0 |
| Needs Improvement (N) | 16 | 16 | 0 |
| Needs Improvement (\%) | 3.1 | 3.1 | 0 |
| Transportation to the visit |  |  |  |
| Works Great/ Not a problem (N) | 389 | 389 | 0 |
| Works Great/ Not a problem (\%) | 77.6 | 77.6 | 0 |
| Works good most of the time (N) | 99 | 99 | 0 |
| Works good most of the time (\%) | 19.8 | 19.8 | 0 |
| Needs Improvement (N) | 13 | 13 | 0 |
| Needs Improvement (\%) | 2.6 | 2.6 | 0 |
| Parking for a TEDDY visit |  |  |  |
| Works Great/ Not a problem (N) | 409 | 409 | 0 |


| Works Great/ Not a problem (\%) | 80.8 | 80.8 | 0 |
| ---: | ---: | ---: | ---: |
| Works good most of the time (N) | 75 | 75 | 0 |
| Works good most of the time (\%) | 14.8 | 14.8 | 0 |
| Needs Improvement (N) | 22 | 22 | 0 |
| Needs Improvement (\%) | 4.3 | 4.3 | 0 |

## Attachment A: SAS Code

***Program:
***Programmer: Jane Wang
***Date Created: 06/10/2015
***Purpose:


```
title1 "%sysfunc(getoption(sysin))"
```

title2 " ";
options nofmterr;
libname sas_data "/prj/niddk/ims_analysis/TEDDY/private_orig_data/Pub21_BLernmark_niddk_submission/";
*** Reading in the analysis datasets used for the DSIC;
data Pub21_BLernmark ; set sas_data.pub21_blernmark_niddk ;
data Pub21_BLernmark;
set Pub21_BLernmark;
rename watchingchildfordevelofdiabete = watch_d
helpsciencediscovertype1diab = help_d
gettingchildantibodyresults = get_result

| seenbysameteddystaff | $=$ see_staff |
| :--- | :--- |
| childparticipatefuturestudies | $=$ child_result |
| parent_answered | $=$ parent_answer |
| WorkingWithTheTEDDYStaff | $=$ workwithstaff |
| GettingMyQuestionsAnswered | $=$ getqanswer |
| WaitBeforeTheTEDDYVisitStarts | $=$ waitbefore |
| DayTimeVisitScheduled | $=$ dayschedule |
| TimeToCompleteVisit | $=$ timecomplete |
| RemindersForTheTEDDYVisits | $=$ reminder |
| TransportToTEDDYVisit | $=$ transport |
| ParkingForATEDDYVisit | $=$ parking |
| ; |  |

*** Data from the Primary outcome paper that was converted to .csv format so that the DSIC data could be easily compared;
FILENAME table1 '/prj/niddk/ims_analysis/TEDDY/private_created_data/teddy_pub21_table1.csv';
FILENAME table2 '/prj/niddk/ims_analysis/TEDDY/private_created_data/teddy_pub21_table2.csv';
*** Output CSV files that will be converted to .xls before being added to the DSIC document;
FILENAME out_t1 '/prj/niddk/ims_analysis/TEDDY/private_created_data/teddy_pub21_table1_dsic.csv';
FILENAME out_t2 '/prj/niddk/ims_analysis/TEDDY/private_created_data/teddy_pub21_table2_dsic.csv';
\%macro baseline_freq1(dataset_name,var_name);
*** Creating a frequency table in the format of Table 1 in the primary outcome paper;

```
proc freq data = &dataset_name ;
    table (&var_name.)*country ;
    title3 "Frequency table of the &var_name. variable in the analysis dataset";
```

    *** Outputting the frequency data to work.\&var_name._cross using the ODS output;
    ods output CrossTabFreqs = work.\&var_name._cross;
data \&var_name._cross(keep = \&var_name country Frequency Percent_keep );
set \&var_name._cross;
if \&var_name = 'Very Important';
if country = . then Percent_keep = Percent;
else Percent_keep = colpercent;
proc sort data = \&var_name._cross;
by \&var_name;
proc transpose data=\&var_name._cross out=\&var_name._transpose ;
by \&var_name;

```
data &var_name._transpose (drop = _LABEL_ &var_name) ;
    set &var_name._transpose ;
    if _name_ ne 'country';
    length table_name $30.;
    table_name ="&var_name";
    rename col1 = US
        col2 = FINLAND
        col3 = GERMANY
        col4 = SWEDEN
        col5 = ALL
        _NAME_ = count_pert;
```

\%mend;
\%macro baseline_freq2(dataset_name,var_name);
*** Creating a frequency table in the format of Table 1 in the primary outcome paper;
proc freq data = \&dataset_name ;
table (\&var_name.)*country ;
title3 "Frequency table of the \&var_name. variable in the analysis dataset";
*** Outputting the frequency data to work.\&var_name._cross using the ODS output;
ods output CrossTabFreqs = work.\&var_name._cross;

```
data &var_name._cross(keep = &var_name country Frequency );
    set &var_name._cross;
    if &var_name = 1;
proc sort data = &var_name._cross;
    by &var_name;
proc transpose data=&var_name._cross out=&var_name._transpose ;
    by &var_name;
data &var_name._transpose (drop = _LABEL_ &var_name) ;
    set &var_name._transpose ;
    if _name_ ne 'country';
    length table_name $30.;
    table_name ="&var_name";
    rename col1 = US
        col2 = FINLAND
        col3 = GERMANY
        col4 = SWEDEN
        col5 = ALL
```


## _NAME_ = count_pert;

## \%mend;

\%macro baseline_freq3(dataset_name,var_name);
*** Creating a frequency table in the format of Table 1 in the primary outcome paper;
proc freq data = \&dataset_name ;
table (\&var_name.)*country ;
title3 "Frequency table of the \&var_name. variable in the analysis dataset";
where country ne 3 ;
*** Outputting the frequency data to work.\&var_name._cross using the ODS output;
ods output CrossTabFreqs = work.\&var_name._cross;
data \&var_name._cross(keep = \&var_name country Frequency Percent_keep );
set \&var_name._cross;
if \&var_name ne '';
if country = . then Percent_keep = Percent;
else Percent_keep = colpercent;
proc sort data = \&var_name._cross;
by \&var_name;

```
proc transpose data=&var_name._cross out=&var_name._transpose ;
    by &var_name;
data &var_name._transpose (drop = _LABEL_ &var_name ) ;
    set &var_name._transpose ;
    if _name_ ne 'country';
    length table_name levels $30.;
    table_name ="&var_name";
    if &var_name = 'Works Good Most of the Time-Sometimes a problem' then &var_name = 'Works good most of the time';
    levels =&var_name;
    rename col1 = US
        col2 = FINLAND
        col3 = SWEDEN
        col4 = ALL
        _NAME_ = count_pert
%mend;
```


*************** Check Table 1 ****************************************************************)

*** Running the baseline_freq on the categorical variables in the Table 1 manuscript file;

| \%baseline_freq1(Pub21_BLernmark, watch_d | ); |
| :--- | :--- |
| \%baseline_freq1(Pub21_BLernmark, help_d | ); |
| \%baseline_freq1(Pub21_BLernmark, get_result | ); |
| \%baseline_freq1(Pub21_BLernmark, see_staff | ); |
| \%baseline_freq1(Pub21_BLernmark, child_result |  |
| \%baseline_freq2(Pub21_BLernmark, parent_answer | ); |

data table1_compare;
set watch_d_transpose
help_d_transpose
get_result_transpose
see_staff_transpose
child_result_transpose
parent_answer_transpose
;
proc print data = table1_compare;
title3 'table 1 from data set';
*** Importing the Table 1 Data taken from the primary outcome paper;

```
data table1_data;
    infile table1 delimiter = ',' MISSOVER DSD firstobs=2 ls=1080;
    length character $100. count_pert $12. table_name $ 30.;
    input character $ count_pert $ table_name $ FINLAND_ GERMANY_
;
data table1_data;
    set table1_data;
    ordernum = _n_;
proc print data = table1_data;
    title3 'table 1 from paper';
proc sort data = table1_data(drop = e);
    by table_name count_pert;
proc sort data = table1_compare;
    by table_name count_pert;
data table1_combine;
    merge table1_data (in = in2) table1_compare (in = in1);
    by table_name count_pert;
```

if in1 and in2;
data table1_combine;

| diff_all | $=$ round ((round(all_, 0.1) |  | round(all , | ,0.1)),0.1); |
| :---: | :---: | :---: | :---: | :---: |
| diff_FINLAND | $=$ round ((round(FINLAND_, 0.1) |  | round(FINLAND | ,0.1)),0.1); |
| diff_GERMANY | $=$ round ( (round(GERMANY_, 0.1) | - | round (GERMANY | ,0.1)),0.1); |
| diff_SWEDEN | $=$ round ( $($ round (SWEDEN_, 0.1) | - | round(SWEDEN | ,0.1)),0.1); |
| diff_us | $=$ round ( $($ round $($ US_, 0.1$)$ | - | round(US | 1) ), 0.1); |

label
character = "Reasons for staying in TEDDY"
FINLAND_ = "FINLAND [Manuscript]
FINLAND = "FINLAND [DSIC] "
diff_FINLAND = "FINLAND [Difference]"
GERMANY_ = "GERMANY [Manuscript]"
GERMANY = "GERMANY [DSIC] "
diff_GERMANY = "GERMANY [Difference]"
SWEDEN_ = "SWEDEN [Manuscript]"
SWEDEN = "SWEDEN [DSIC] "
diff_SWEDEN = "SWEDEN [Difference]"
US_ = "US [Manuscript]"
US = "US [DSIC] "

```
diff_US = "US [Difference]"
all_ = "all [Manuscript]"
all = "all [DSIC]
diff_all = "all [Difference]"
;
```




*** Running the baseline_freq on the categorical variables in the Table 2 manuscript file;
\%baseline_freq3(Pub21_BLernmark,workwithstaff );
\%baseline_freq3(Pub21_BLernmark,getqanswer );
\%baseline_freq3(Pub21_BLernmark,waitbefore );
\%baseline_freq3(Pub21_BLernmark,dayschedule );
\%baseline_freq3(Pub21_BLernmark,timecomplete );
\%baseline_freq3(Pub21_BLernmark, reminder );
\%baseline_freq3(Pub21_BLernmark,transport );
\%baseline_freq3(Pub21_BLernmark, parking );

```
data table2_compare;
    set workwithstaff_transpose
        getqanswer_transpose
    waitbefore_transpose
    dayschedule_transpose
    timecomplete_transpose
    reminder_transpose
    transport_transpose
    parking_transpose
    ;
proc print data = table2_compare;
    title3 'table 2 from data set';
*** Importing the Table 2 Data taken from the primary outcome paper;
data table2_data;
infile table2 delimiter = ',' MISSOVER DSD firstobs=2 ls=1080;
length character $30. levels $ 30. table_name $ 30. count_pert $12.;
input character \$ levels \$ table_name \$ count_pert \$ ALL_ FINLAND_ SWEDEN_ S
;
data table2_data;
    set table2_data;
ordernum = _n_;
```

```
proc print data = table2_data;
proc sort data = table2_data(drop = e);
    by table_name levels count_pert;
proc sort data = table2_compare;
    by table_name levels count_pert;
data table2_combine;
    merge table2_data (in = in2) table2_compare (in = in1);
    by table_name levels count_pert;
    if in1 and in2 then output table2_combine;
data table2_combine;
    set table2_combine;
    diff_all = round((round(all_,0.1) - round(all ,0.1)),0.1);
    diff_FINLAND = round((round(FINLAND_,0.1) - round(FINLAND ,0.1)),0.1);
    diff_SWEDEN = round((round(SWEDEN_,0.1) - round(SWEDEN ,0.1)),0.1);
    diff_US = round((round(US_,0.1) - round(US ,0.1)),0.1);
    label
    character = "Reasons satisfaction with different components of the TEDDY study by country"
    levels = "levels"
    FINLAND_ = "FINLAND [Manuscript]"
    FINLAND = "FINLAND [DSIC] "
```

```
diff_FINLAND = "FINLAND [Difference]"
SWEDEN_ = "SWEDEN [Manuscript]"
SWEDEN = "SWEDEN [DSIC] "
diff_SWEDEN = "SWEDEN [Difference]"
US_ = "US [Manuscript]"
US = "US [DSIC] "
diff_US = "US [Difference]"
all_ = "all [Manuscript]"
all = "all [DSIC] "
diff_all = "all [Difference]"
```

proc sort data = table1_combine;
by ordernum;
*** Outputting the data to a csv format to be added to the DSIC;
ods csv file = out_t1;
run;
proc print data = table1_combine NOOBS label;
var
character

FINLAND_
FINLAND
diff_FINLAND
GERMANY
GERMANY
diff_GERMANY
SWEDEN

SWEDEN
diff_SWEDEN

US_
US
diff_US
all_
all
diff_all
;
title "DSIC Check of Table 1 Most commom reasons for strying in TEDDY";
run;
proc sort data = table2_combine;
by ordernum;
*** Outputting the data to a csv format to be added to the DSIC;
ods csv file = out_t2;
run;
proc print data = table2_combine NOOBS label;
var
character
levels
all
all
diff_all

FINLAND_
FINLAND
diff_FINLAND
SWEDEN

SWEDEN
diff_SWEDEN

US

US
diff_US
title "DSIC Check of Table 2 Reasons satisfaction with differnet components of the TEDDY study by country"; run;

