

```

proc datasets lib=work nolist memtype=data kill; quit;

/*=====
*Covance Study ID      : 000000106343
*Program Name          : t_max_prduse_fas.sas
*Purpose               : 15.2.2.2 summary of maximum Product use in Ambulatory Period -FAS

*Input Data           : adam.adsl, ADAM.adex
*Output Data          :
*Macros Called         : m_printto m_logchk
*Programmed by        : cvn_sbikki
*Creation Date         : 12-May-2015
*== Modification History =====
*Date      Initials  No. Reason;
*=====*/;

options notes source source2 nofullstimer validvarname=upcase missing=' ';

%m_printto;

%let TFL_Part=%scan(&_SASPROGRAMFILE,-3,%str(/));

/* Standard - leave this */
data _null_;
    tmp="%TFL_Part";
    if tmp not in ("dev" "qc") then call symput("TFL_Part", "prod");
    call symput('TFLpath', compress("&_SASPROGRAMFILE",""));
    call symput('TFLprg',reverse(scan(strip(reverse(compress("&_SASPROGRAMFILE","")),1,"/"))));
run;

data adex0;
set adam.adex;
where parcat3 = "DAILY PRODUCT USE" and (anl01f1 = 'Y') and FASFL= 'Y';
run;

data adex1;
set adam.adex;
where parcat3 = "DAILY PRODUCT USE" and anl02f1 = 'Y' and FASFL= 'Y';
if anl02f1 = 'Y' then do;
    apuperc = 'Ambulatory';
    apuper = 5;
end;
run;

data adex;
set adex0 adex1;
run;

data adex;
set adex;
if paramcd = "DTHS2_2" then param = "THSm2.2 Sticks";
if paramcd = "DMCC" then param = "mCC/CC";
if paramcd = "DCHWMKL" then param = "Chew/Smokeless Tob." ;
if paramcd = "DCIGARS" then param = "Cigar/Cigarillo";
if paramcd = "DE_CIG" then param = "E-Cigarette";
if paramcd = "DGUMS" then param = "Gums";
if paramcd = "DINHALER" then param = "Inhaler";
if paramcd = "DLOZENGE" then param = "Lozenges";
if paramcd = "DNASPRAY" then param = "Nasal Spray";
if paramcd = "DOTHNRT" then param = "Other NRT";
if paramcd = "DPATCHES" then param = "Patches";
if paramcd = "DPIPE" then param = "Pipes";
if paramcd = "DOTHTOB" then param = "Tob. Not Listed";
run;

data dm;
set adex;
where trtpn not in (96, 99);
if trtpn = 4 then do;
    trt01p = 'THS';
    trt01pn = 1;
end;
if trtpn = 5 then do;
    trt01p = 'mcc';
    trt01pn = 2;

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end;
if trt01pn = 3 then do;
trt01p = 'SA';
trt01pn = 3;
end;
run;

data dm0;
set dm;
output;
trt01pn = 99;
trt01p = 'Total';
output;
run;

proc sort data= dm0;
by usubjid;
run;

/*bign calculation for each period*/

proc sql;

select count(distinct usubjid) into: N2THS from adam.adsl(where=(trt01pn = 4 and FASFL = "Y"));
select count(distinct usubjid) into: N2MCC from adam.adsl(where=(trt01pn = 5 and FASFL = "Y"));
select count(distinct usubjid) into: N2SAA from adam.adsl(where=(trt01pn = 3 and FASFL = "Y" ));
select count(distinct usubjid) into: NTOT from adam.adsl (where=(trt01pn in (4, 5 ,3) and FASFL = "Y"));
quit;

/* End of bign calculation for each period*/

data dummy;
do ord = 1 to 4;
do trt01pn = 1, 2, 3, 99;
do srt = 1 to 13;
output;
end;
end;
end;
run;
proc sort data= dummy;
by srt ord trt01pn;
run;

/*Stats calculation for each parama and period*/

data dm1;
set dm0;
where aval ge 0;
run;

%macro blocks( cond = , outds= , srt1 =, fin= );

data &outds;
set dm1;
where &cond;
run;

proc sort data= &outds;
by trt01pn trt01p apuperc apuper param;
run;

proc means data=&outds noprint;
by trt01pn trt01p apuperc apuper param;
var aval;
output out=&outds._1 (drop=_type_ _freq_)n=smalln mean=mean std=std min=min max=max median=med lclm = lclm uclm = uclm;
run;

data &fin;
set &outds._1;
if smalln = 0 then smalln = .;

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    if not missing(lclm) then lclmx = 0.1*floor(10*lclm);
    if not missing(uclm) then uclmx = 0.1*ceil(10*uclm);
if not missing(smalln) then do;
    n=strip(put(smalln,best.));
    end;

    if not missing(mean) and not missing(std) then do;
mean_sd=strip(put(round(mean, 0.01), 15.1))||" ("||strip(put(ceil(std*100)*0.01, 16.2))||")";
end;

    if not missing(mean) and missing(std) then do;
mean_sd=strip(put(round(mean, 0.01), 15.1))||" ("||"NA"||")";
end;
if not missing(med) then do;
median=strip(put(round(med, 0.01), 15.1));
end;

    if not missing(min) and not missing(max) then do;
min_max= strip(put(min, 15.0))||", "||strip(put(max, 15.0));
end;

if not missing(lclmx) and not missing(uclmx) then do;
ci = strip(put(lclmx, 15.1))||", "||strip(put(uclmx, 15.1));
end;


if apuper = 2 then ord =1;
if apuper = 3 then ord =2;
if apuper = 4 then ord =3;
if apuper = 5 then ord = 4;
srt = &srt1;
    drop mean med min max std lclmx uclmx lclm uclm apuper;
run;

proc sort data= &fin(rename=(apuperc = time param = product));
by srt ord trt01pn trt01p;
run;

%mend blocks;

%blocks(cond = ( paramcd = "DTHS2_2"), outds= stat,srt1= 1, fin = stat1);
%blocks(cond = (paramcd = "DMCC"), outds= stat,srt1= 2, fin = stat2);
%blocks(cond = ( paramcd = "DCHWMKL"), outds= stat,srt1= 3, fin = stat3);
%blocks(cond = ( paramcd = "DCIGARS"), outds= stat,srt1= 4, fin = stat4);
%blocks(cond = ( paramcd = "DE_CIG"), outds= stat,srt1= 5, fin = stat5);
%blocks(cond = ( paramcd = "DGUMS"), outds= stat,srt1= 6, fin = stat6);
%blocks(cond = ( paramcd = "DINHALER"), outds= stat,srt1= 7, fin = stat7);
%blocks(cond = (paramcd = "DLOZENGE"), outds= stat,srt1= 8, fin = stat8);
%blocks(cond = (paramcd = "DNASPRAY"), outds= stat,srt1= 9, fin = stat9);
%blocks(cond = (paramcd = "DOTHNRT"), outds= stat,srt1= 10, fin = stat10);
%blocks(cond = ( paramcd = "DPATCHES"), outds= stat,srt1= 11, fin = stat11);
%blocks(cond = (paramcd = "DPIPE"), outds= stat,srt1= 12, fin = stat12);
%blocks(cond = ( paramcd = "DOTHTOB"), outds= stat,srt1= 13, fin = stat13);


data stat_fin;
set stat1 -stat13;
    if n = " " then n = "0";
    if mean_sd = " " then mean_sd = "NA";
    if min_max = " " then min_max ="0 , 0";
    if median = " " then median = "0.0";
    if ci = " " then ci = "NC, NC";
run;


data stat_fin_1;
merge dummy (in=a) stat_fin;
by srt ord trt01pn;
if a;
if ord =1 then time = "Period 2";
if ord =2 then time = "Period 3";
if ord =3 then time = "Period 4";
if ord =4 then time = "Ambulatory";
if srt = 1 then product = "THSm2.2 Sticks";
if srt = 2 then product = "mCC/CC";

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if srt = 3 then product = "Chew/Smokeless Tob.";
if srt = 4 then product = "Cigar/Cigarillo";
if srt = 5 then product = "E-Cigarette";
if srt = 6 then product = "Gums";
if srt = 7 then product = "Inhaler";
if srt = 8 then product = "Lozenges";
if srt = 9 then product = "Nasal Spray";
if srt = 10 then product = "Other NRT";
if srt = 11 then product = "Patches";
if srt = 12 then product = "Pipes";
if srt = 13 then product = "Tob. Not Listed";
if trt01pn = 2 then trt01p = "mcc";
if trt01pn = 3 then trt01p = "SA";
if trt01pn = 1 then trt01p = "THS";
if trt01pn = 99 then trt01p = "Tot";
run;

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data final;
set stat_fin_1(in=b);
if trt01pn = 1 then bign = &n2ths;
else if trt01pn =2 then bign = &n2mcc;
else if trt01pn = 3 then bign = &n2saa;
else if trt01pn = 99 then bign = &ntot;
run;

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```

data final_1;
set final;
if not missing(smalln) and not missing(bign) and smalln ne bign then do;
per1 = strip(put(smalln,best.)) || ' (' ||strip(put(round((smalln/bign)* 100, 0.1), 15.1))||')';
end;
else if smalln = bign and not missing(smalln) and not missing(bign) then do;
per1 = strip(put(smalln,best.)) || ' (' ||strip(put(round((smalln/bign)* 100, 0.1),best.))||')';
end;
else if smalln = . and bign = . then do;
per1 = " ";
end;
n= strip(put(smalln,best.));
bign1 = strip(put(bign,5.0));
run;

```

```

proc transpose data= final_1 out= final_tra prefix= trt;
by srt ord product time;
var bign1 per1 mean_sd median min_max ci;
id trt01pn;
run;

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data final_2;
length term $200.;
set final_tra;
if _name_ = "PER1" then do;
subord = 1;
term = "n(%)";
end;
else if _name_ = "MEAN_SD" then do;
subord = 2;
term = "Mean (SD)";
end;
else if _name_ = "CI" then do;
subord = 3;
term = "95% CI";
end;
else if _name_ = "MEDIAN" then do;
subord = 4;
term = "Median";
end;
else if _name_ = "MIN_MAX" then do;
subord = 5;
term = "Min, Max";
end;
run;

```

```

proc sort data= final_2;
by srt ord subord term;
run;

```

```
proc sql;
create table test as
select distinct (product) from stat_fin;
quit;
```

```
proc sort data= final_2;
by product;
run;
```

```
data final_3;
merge final_2(in=a) test(in=b);
by product;
if b;
run;
```

```
data final_3;
set final_3;
if term = " " then delete;
if subord= 1 then do;
if trt1 = " " then trt1 = "0";
if trt2 = " " then trt2 = "0";
if trt3 = " " then trt3 = "0";
if trt99 = " " then trt99 = "0";
end;
run;
```

```
proc sort data= final_3;
by srt ord subord term;
run;
```

```
data page1;
set final_3;
by srt ord subord term;
obs=_n_;
page = ceil(obs/10);
run;
```

```
proc sql;
create table final_page as
select distinct a.*, b.page
from final_3 as a
left join page1 as b
on a.srt = b.srt and a.ord = b.ord and a.subord = b.subord
order by srt, ord, subord;
quit;
```

```
data final_page;
set final_page end=last;
by srt ord subord;
if last then call symputx("page", page);
run;
```

```
%let tflno = %str(T_15_02_02_02);
```

```
data tflds.&tflno;
set final_page;
```

```
run;
```

```
%put &page;
```

```
/* Standard - leave this */
options number nodate orientation=landscape /* papersize=&P_PGSIZE*/ missing=' ';
ods escapechar='$';
%let linetop = \brdrt\brdrs\brdrw30; * needs to be 1.5pt so calculated in twips (1/20 pt) ;
%let linebot = \brdrb\brdrs\brdrw30;
```

```
/* Standard - macro for paging */
```

```
%macro outrtf(blankn=130, halfblnk=N);
```

```

%if &halfblnk=N %then %let halfblnk=;
%else %if &halfblnk=Y %then %let halfblnk=-;

ods path stdlib.t106343 (read) ;
ods results off;
ods rtf toc_data/* contents*/ file="cvn/projects/prj/data/000000106343/TFL/&TFL_Part./Tables/&tflno..rtf" style=t106343 startpage=y
es headery=1440 footery=1440 ;
ods noproctitle;
%do i=1 %to &page;

title ;
footnote;
%let wd=0;
ods proclabel = ' ';

data comp;
    set final_page end=eof;
    where page=&i;
        /* Amend title as needed */
        _firtitl="Table 15.2.2.2 Summary of Maximum Daily Product Use in Ambulatory Period- FAS";
        _upcas=(length("Path: &TFLpath.")-length(compress("Path:&TFLpath.",'ABCDEFGHIJKLMNOPQRSTUVWXYZ')))/2;
        len=&blankn.-length("(Page &i of &page)");
    if eof then do;
        call symput('_FSRTITL', trim(left(_firtitl)));
        call symput('_blankn', compress(put(len,best.)));
    end;
    drop _firtitl _upcas len;
run;

ods listing close;

* most set up in template others below;
* title arial 12pt bold with 12pt paragraph space below;
* all headers to be arial 11pt bold;
* data arial 10pt;
* headers to be central, text values left aligned and numeric centered around decimal point;
/* Update with your variables as needed */

proc report data = comp headline headskip nowd split = '$' %if &i=1 %then %do; contents=' ' %end; %else %do; contents='' %end;;;
column page srt ord product time subord term trt1 trt2 trt3 trt99;
define page / order order = internal noprint;
define srt / order order = internal noprint;
define ord / order order = internal noprint;
define product / group "Product" style={just=left cellwidth=1.9cm} style(header)={just=left};
define time /group "Product Use$Time Periods" style={just=left cellwidth=1.9cm} style(header)={just=left} ;
define subord / order order = internal noprint; ;
define term /"Statistic" display style={JUST=1 cellwidth=1.4cm} style(header)={just=left} ;
define trt1 / "THSm2.2$(N=%sysfunc(strip(&n2ths)))" display style={just=c cellwidth=1.4cm} style(header)={just=center} ;
define trt2 /"mCC$(N=%sysfunc(strip(&n2mcc)))" display style={just=c cellwidth=1.4cm} style(header)={just=center};
define trt3 /"SAS$(N=%sysfunc(strip(&n2saa))) " display style={JUST=c cellwidth=1.4cm} style(header)={just=center};
define trt99 /"Overall FAS$(N=%sysfunc(strip(&ntot))) " display style={just=c cellwidth=1.4cm} style(header)={just=cente
r});

break after page / page;

compute after ord;
line " ";
endcomp;

compute before page / style={protectspecialchars=off};;
line "&linetop";
endcomp;

compute before _page_ / style={just=left protectspecialchars=off};
line "\b\fs24\sa24&_FSRTITL." ; * \b = bold, \fs24 is font size 12pt, \sa24 is space after 12pt;
line "&linebot";
endcomp;

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compute after _page_/ style={just=left protectspecialchars=off pretext="&linetop."};
  line 'Note: mCC = Menthol Conventional cigarettes; SA = Smoking abstinence; THSm2.2 = Tobacco Heating System 2.2 Menthol.';
  line 'Note: Ambulatory Periods defined as Period 2 ([Day 6 ambulatory - Day 30 Visit]), Period 3 ([Day 30 Visit - Day 60 Visit]) and Period 4 ([Day 60 Visit - Day 90 Visit]).';
  line 'Note: Percentages are based on the number of subjects indicated in each product use period (N).';
  line 'Note: Tob. Not Listed refers to other tobacco products not previously listed.';
  line 'Note: NC = Not calculated.';
  line ' ';
  line 'Appendix 15.3.2.1.3';
  line "Study ID:ZRHM-REXA-08-US   Program:&TFLprg   Status: &status" &_blankn.*"\-\" "&sysdate" &_blankn.*"\-\" "(Page &i of &page)";
  endcomp;
run;
%end;
ods rtf close;
ods results on;
ods path sashelp.tmplmst (read);

%mend ;

%outtrtf(blankn=36, halfblank=N);

ods listing;
%m_logchk2;

```