

## SAS code for computing Informed Coverage

### Coverage PE

```
data ps_allstates;
    set in.allstates_set121013;

    dob_d=day(DOB);
    dob_m=month(DOB);
    dob_y=year(DOB);

    age_2003=(mdy(1,1,2003)-DOB)/365.25;
    birth_month=dob_m+(dob_y-2003)*12;
    ageout_month=dob_m+((dob_y+18)-2003)*12;
run;

data ps_allstates;
    set ps_allstates;

    array monthdays month_3_1-month_3_12 month_4_1-month_4_12
        month_5_1-month_5_12 month_6_1-month_6_12
        month_7_1-month_7_12 month_8_1-month_8_12
        month_9_1-month_9_12;
    array chip chip_flag_3_1-chip_flag_3_12 chip_flag_4_1-chip_flag_4_12
        chip_flag_5_1-chip_flag_5_12 chip_flag_6_1-chip_flag_6_12
        chip_flag_7_1-chip_flag_7_12 chip_flag_8_1-chip_flag_8_12
        chip_flag_9_1-chip_flag_9_12;

    do i=1 to 84;
        if birth_month>i then do;
            monthdays(i)=0;
            chip(i)=0;
        end;

        if ageout_month<i then do;
            monthdays(i)=0;
            chip(i)=0;
        end;
    end;
run;

data ps_allstates;
```

```
set ps_allstates;
```

```
%macro month(month,days);
```

```
    if month_&month > &days then month_&month=&days;
```

```
    any_days_&month=(month_&month > 0);
```

```
    covered_&month=(month_&month ge &days/2);
```

```
    days_out_&month=&days-month_&month;
```

```
    if chip_flag_&month=3 then do;
```

```
        covered_&month=1;
```

```
        any_days_&month=1;
```

```
        month_&month=&days;
```

```
        days_out_&month=0;
```

```
    end;
```

```
%mend month;
```

```
%month(3_1,31);
```

```
%month(3_2,28);
```

```
%month(3_3,31);
```

```
%month(3_4,30);
```

```
%month(3_5,31);
```

```
%month(3_6,30);
```

```
%month(3_7,31);
```

```
%month(3_8,31);
```

```
%month(3_9,30);
```

```
%month(3_10,31);
```

```
%month(3_11,30);
```

```
%month(3_12,31);
```

```
%month(4_1,31);
```

```
%month(4_2,29);
```

```
%month(4_3,31);
```

```
%month(4_4,30);
```

```
%month(4_5,31);
```

```
%month(4_6,30);
```

```
%month(4_7,31);
```

```
%month(4_8,31);
```

```
%month(4_9,30);
```

```
%month(4_10,31);
```

```
%month(4_11,30);
```

```
%month(4_12,31);
```

```
%month(5_1,31);
```

```
%month(5_2,28);
```

```
%month(5_3,31);
```

%month(5\_4,30);  
%month(5\_5,31);  
%month(5\_6,30);  
%month(5\_7,31);  
%month(5\_8,31);  
%month(5\_9,30);  
%month(5\_10,31);  
%month(5\_11,30);  
%month(5\_12,31);  
%month(6\_1,31);  
%month(6\_2,28);  
%month(6\_3,31);  
%month(6\_4,30);  
%month(6\_5,31);  
%month(6\_6,30);  
%month(6\_7,31);  
%month(6\_8,31);  
%month(6\_9,30);  
%month(6\_10,31);  
%month(6\_11,30);  
%month(6\_12,31);  
%month(7\_1,31);  
%month(7\_2,28);  
%month(7\_3,31);  
%month(7\_4,30);  
%month(7\_5,31);  
%month(7\_6,30);  
%month(7\_7,31);  
%month(7\_8,31);  
%month(7\_9,30);  
%month(7\_10,31);  
%month(7\_11,30);  
%month(7\_12,31);  
%month(8\_1,31);  
%month(8\_2,29);  
%month(8\_3,31);  
%month(8\_4,30);  
%month(8\_5,31);  
%month(8\_6,30);  
%month(8\_7,31);  
%month(8\_8,31);  
%month(8\_9,30);

```
%month(8_10,31);
%month(8_11,30);
%month(8_12,31);
%month(9_1,31);
%month(9_2,28);
%month(9_3,31);
%month(9_4,30);
%month(9_5,31);
%month(9_6,30);
%month(9_7,31);
%month(9_8,31);
%month(9_9,30);
%month(9_10,31);
%month(9_11,30);
%month(9_12,31);
```

```
array monthdays month_3_1-month_3_12 month_4_1-month_4_12
    month_5_1-month_5_12 month_6_1-month_6_12
    month_7_1-month_7_12 month_8_1-month_8_12
    month_9_1-month_9_12;
array out days_out_3_1-days_out_3_12 days_out_4_1-days_out_4_12
    days_out_5_1-days_out_5_12 days_out_6_1-days_out_6_12
    days_out_7_1-days_out_7_12 days_out_8_1-days_out_8_12
    days_out_9_1-days_out_9_12;
array covered covered_3_1-covered_3_12 covered_4_1-covered_4_12
    covered_5_1-covered_5_12 covered_6_1-covered_6_12
    covered_7_1-covered_7_12 covered_8_1-covered_8_12
    covered_9_1-covered_9_12;
```

```
do i=1 to 84;
    if birth_month=i then do;
        if monthdays(i) > (out(i)+monthdays(i))+1-dob_d then do;
            monthdays(i)=(out(i)+monthdays(i))+1-dob_d;
        end;
        if monthdays(i)=. then monthdays(i)=0;
        covered(i)=(monthdays(i) ge ((out(i)+monthdays(i))+1-dob_d)/2);
        if monthdays(i) in (.,0) then covered(i)=0;
    end;

    if birth_month>i then do;
        covered(i)=.;
    end;
```

```

    if ageout_month=i then do;
        if monthdays(i) > dob_d then do;
            monthdays(i)=dob_d;
        end;
        if monthdays(i)=. then monthdays(i)=0;
        covered(i)=(monthdays(i) ge dob_d/2);
        if monthdays(i) in (.,0) then covered(i)=0;
    end;

    if ageout_month<i then do;
        covered(i)=.;
    end;
end;

eligible=0;

do j=1 to 84;
    if monthdays(j)>0 then eligible=1;
end;

if eligible=1;

drop j;
run;

data full_allstates;
set allstates;

eligible=0;
first_entry=.;

array elig any_days_6_7-any_days_6_12 any_days_7_1-any_days_7_12
    any_days_8_1-any_days_8_12 any_days_9_1-any_days_9_6;
do i=1 to 36;
    if elig(i)>0 then do;
        eligible=1;
        if first_entry=. then do;
            first_entry=i;
        end;
    end;
end;
end;

```

```

        if eligible=1 then output;
            else delete;
run;

data full_allstates;
    set full_allstates;

    array burn covered_6_7-covered_6_12 covered_7_1-covered_7_12;
    array main covered_8_1-covered_8_12 covered_9_1-covered_9_6;

    coverage_den=18;

    ageout_stop=.;

    if 19 le first_entry le 36 then do;
        coverage_den=18-(first_entry-18)+1;
    end;

    do k=1;
        if main(k)=. and first_entry < 19 then do;
            coverage_den=.;
        end;
    end;

    do k=2 to 18;
        if main(k)=. and main(k-1)^=. then do;
            ageout_stop=k-1;
            coverage_den=k-1;
            if 19 le first_entry le 36 then do;
                coverage_den=19-(first_entry-18)-(18-(k-1));
            end;
        end;
    end;

    do l=2 to 18;
        if burn(l)=. and burn(l-1)^=. then do;
            coverage_den=.;
        end;
    end;

run;

```

```
data full_allstates;
  set full_allstates;

  coverage_num=sum(of covered_8_1-covered_8_12 covered_9_1-covered_9_6);
  if coverage_num=. then coverage_num=0;
  if coverage_den^ in (.,0) then do;
    coverage_pe=coverage_num/coverage_den;
  end;
run;
```

## Coverage PI

```
data ps_allstates;
    set in.allstates_set121013;

    dob_d=day(DOB);
    dob_m=month(DOB);
    dob_y=year(DOB);

    age_2003=(mdy(1,1,2003)-DOB)/365.25;
    birth_month=dob_m+(dob_y-2003)*12;
    ageout_month=dob_m+((dob_y+18)-2003)*12;
run;

data ps_allstates;
    set ps_allstates;

    array monthdays month_3_1-month_3_12 month_4_1-month_4_12
        month_5_1-month_5_12 month_6_1-month_6_12
        month_7_1-month_7_12 month_8_1-month_8_12
        month_9_1-month_9_12;
    array chip chip_flag_3_1-chip_flag_3_12 chip_flag_4_1-chip_flag_4_12
        chip_flag_5_1-chip_flag_5_12 chip_flag_6_1-chip_flag_6_12
        chip_flag_7_1-chip_flag_7_12 chip_flag_8_1-chip_flag_8_12
        chip_flag_9_1-chip_flag_9_12;

    do i=1 to 84;
        if birth_month>i then do;
            monthdays(i)=0;
            chip(i)=0;
        end;

        if ageout_month<i then do;
            monthdays(i)=0;
            chip(i)=0;
        end;
    end;
run;

data ps_allstates;
    set ps_allstates;
```



```
%macro month(month,days);
    if month_&month > &days then month_&month=&days;
    any_days_&month=(month_&month > 0);
    covered_&month=(month_&month ge &days/2);
    days_out_&month=&days-month_&month;
    if chip_flag_&month=3 then do;
        covered_&month=1;
        any_days_&month=1;
        month_&month=&days;
        days_out_&month=0;
    end;
%mend month;
```

```
%month(3_1,31);
%month(3_2,28);
%month(3_3,31);
%month(3_4,30);
%month(3_5,31);
%month(3_6,30);
%month(3_7,31);
%month(3_8,31);
%month(3_9,30);
%month(3_10,31);
%month(3_11,30);
%month(3_12,31);
%month(4_1,31);
%month(4_2,29);
%month(4_3,31);
%month(4_4,30);
%month(4_5,31);
%month(4_6,30);
%month(4_7,31);
%month(4_8,31);
%month(4_9,30);
%month(4_10,31);
%month(4_11,30);
%month(4_12,31);
%month(5_1,31);
%month(5_2,28);
%month(5_3,31);
%month(5_4,30);
%month(5_5,31);
```

%month(5\_6,30);  
%month(5\_7,31);  
%month(5\_8,31);  
%month(5\_9,30);  
%month(5\_10,31);  
%month(5\_11,30);  
%month(5\_12,31);  
%month(6\_1,31);  
%month(6\_2,28);  
%month(6\_3,31);  
%month(6\_4,30);  
%month(6\_5,31);  
%month(6\_6,30);  
%month(6\_7,31);  
%month(6\_8,31);  
%month(6\_9,30);  
%month(6\_10,31);  
%month(6\_11,30);  
%month(6\_12,31);  
%month(7\_1,31);  
%month(7\_2,28);  
%month(7\_3,31);  
%month(7\_4,30);  
%month(7\_5,31);  
%month(7\_6,30);  
%month(7\_7,31);  
%month(7\_8,31);  
%month(7\_9,30);  
%month(7\_10,31);  
%month(7\_11,30);  
%month(7\_12,31);  
%month(8\_1,31);  
%month(8\_2,29);  
%month(8\_3,31);  
%month(8\_4,30);  
%month(8\_5,31);  
%month(8\_6,30);  
%month(8\_7,31);  
%month(8\_8,31);  
%month(8\_9,30);  
%month(8\_10,31);  
%month(8\_11,30);

```
%month(8_12,31);
%month(9_1,31);
%month(9_2,28);
%month(9_3,31);
%month(9_4,30);
%month(9_5,31);
%month(9_6,30);
%month(9_7,31);
%month(9_8,31);
%month(9_9,30);
%month(9_10,31);
%month(9_11,30);
%month(9_12,31);
```

```
array monthdays month_3_1-month_3_12 month_4_1-month_4_12
    month_5_1-month_5_12 month_6_1-month_6_12
    month_7_1-month_7_12 month_8_1-month_8_12
    month_9_1-month_9_12;
array out days_out_3_1-days_out_3_12 days_out_4_1-days_out_4_12
    days_out_5_1-days_out_5_12 days_out_6_1-days_out_6_12
    days_out_7_1-days_out_7_12 days_out_8_1-days_out_8_12
    days_out_9_1-days_out_9_12;
array covered covered_3_1-covered_3_12 covered_4_1-covered_4_12
    covered_5_1-covered_5_12 covered_6_1-covered_6_12
    covered_7_1-covered_7_12 covered_8_1-covered_8_12
    covered_9_1-covered_9_12;
```

```
do i=1 to 84;
    if birth_month=i then do;
        if monthdays(i) > (out(i)+monthdays(i))+1-dob_d then do;
            monthdays(i)=(out(i)+monthdays(i))+1-dob_d;
        end;
        if monthdays(i)=. then monthdays(i)=0;
        covered(i)=(monthdays(i) ge ((out(i)+monthdays(i))+1-dob_d)/2);
        if monthdays(i) in (.,0) then covered(i)=0;
    end;

    if birth_month>i then do;
        covered(i)=.;
    end;

    if ageout_month=i then do;
```

```

        if monthdays(i) > dob_d then do;
            monthdays(i)=dob_d;
        end;
        if monthdays(i)=. then monthdays(i)=0;
        covered(i)=(monthdays(i) ge dob_d/2);
        if monthdays(i) in (.,0) then covered(i)=0;
    end;

    if ageout_month<i then do;
        covered(i)=.;
    end;
end;

eligible=0;

do j=1 to 84;
    if monthdays(j)>0 then eligible=1;
end;

if eligible=1;

drop j;
run;

data ps_allstates;
    set ps_allstates (drop=i);

    array chip chip_flag_3_1-chip_flag_3_12 chip_flag_4_1-chip_flag_4_12
        chip_flag_5_1-chip_flag_5_12 chip_flag_6_1-chip_flag_6_12
        chip_flag_7_1-chip_flag_7_12 chip_flag_8_1-chip_flag_8_12
        chip_flag_9_1-chip_flag_9_12;

    chip_pat=0;

    do i=1 to 84;
        if birth_month le i le ageout_month
            and chip(i)=3 then do;
            chip_pat=1;
        end;
    end;
end;
run;

```

```

data lib_allstates;
  set allstates;

  eligible=0;
  first_entry=.;

  array elig any_days_8_1-any_days_8_12 any_days_9_1-any_days_9_6;
  do i=1 to 18;
    if elig(i)>0 then do;
      eligible=1;
      if first_entry=. then do;
        first_entry=i;
      end;
    end;
  end;

  if eligible=1 then output;
  else delete;
run;

```

```

data lib_allstates;
  set lib_allstates;

  coverage_den=19-first_entry;

  array main covered_8_1-covered_8_12 covered_9_1-covered_9_6;

  ageout_stop=.;
  do j=2 to 18;
    if main(j)=. and main(j-1)^=. then do;
      ageout_stop=j-1;
      coverage_den=19-first_entry-(18-ageout_stop);
    end;
  end;

  coverage_num=sum(of covered_8_1-covered_8_12 covered_9_1-covered_9_6);
  if coverage_num=. then coverage_num=0;
  if coverage_den^ in (.,0) then do;
    coverage_pi=coverage_num/coverage_den;
  end;
run;

```

## Appendicitis Coverage Test

```
data ip_allstates;
  set in.ip2008
  (keep=MSIS_ID STATE_CD DIAG_CD_1 PRCDR_CD_1 SRVC_BGN_DT)
  in1.ip2009 (keep=MSIS_ID STATE_CD DIAG_CD_1 PRCDR_CD_1 SRVC_BGN_DT);
run;
```

```
data ip_allstates;
  set ip_allstates;
  appendicitis=0;
  appendectomy = 0;

  if diag_cd_1 in ('540','5400','5401','5409','541') then do;
    appendicitis = 1;
  end;

  if prcdr_cd_1 in ('470','4701','4709','472') then do;
    appendectomy = 1;
  end;

  srv_m=substr(left(srv_bgn_dt),5,2);
  srv_y=substr(left(srv_bgn_dt),1,4);
  srv_d=substr(left(srv_bgn_dt),7,2);
  format service mmdyy8.;
  service=mdy(srv_m,srv_d,srv_y);

  if mdy(1,1,2008) le service le mdy(6,30,2009);

  keep MSIS_ID STATE_CD DIAG_CD_1 PRCDR_CD_1 SRVC_BGN_DT service appendicitis
  appendectomy;
run;
```

```
data both_allstates;
  set ip_allstates;
  appendix=0;
  if appendicitis=1 or appendectomy=1 then appendix=1;
  if appendix=1;
run;
```

```
proc sort data=both_allstates;
by STATE_CD MSIS_ID service;
```

```
run;
```

```
data both_allstates;
```

```
    set both_allstates;  
    by STATE_CD MSIS_ID;  
    if first.MSIS_ID;
```

```
run;
```

```
data ps07_allstates;
```

```
    set ps.ps2007 (keep=MSIS_ID STATE_CD EL_DOB EL_SEX_CD  
                  EL_DAYS_EL_CNT_1-EL_DAYS_EL_CNT_12);
```

```
    rename EL_DAYS_EL_CNT_1=month_1_1;  
    rename EL_DAYS_EL_CNT_2=month_1_2;  
    rename EL_DAYS_EL_CNT_3=month_1_3;  
    rename EL_DAYS_EL_CNT_4=month_1_4;  
    rename EL_DAYS_EL_CNT_5=month_1_5;  
    rename EL_DAYS_EL_CNT_6=month_1_6;  
    rename EL_DAYS_EL_CNT_7=month_1_7;  
    rename EL_DAYS_EL_CNT_8=month_1_8;  
    rename EL_DAYS_EL_CNT_9=month_1_9;  
    rename EL_DAYS_EL_CNT_10=month_1_10;  
    rename EL_DAYS_EL_CNT_11=month_1_11;  
    rename EL_DAYS_EL_CNT_12=month_1_12;
```

```
run;
```

```
data ps08_allstates;
```

```
    set ps.ps2008 (keep=MSIS_ID STATE_CD EL_DOB EL_SEX_CD  
                  EL_DAYS_EL_CNT_1-EL_DAYS_EL_CNT_12);
```

```
    rename EL_DAYS_EL_CNT_1=month_2_1;  
    rename EL_DAYS_EL_CNT_2=month_2_2;  
    rename EL_DAYS_EL_CNT_3=month_2_3;  
    rename EL_DAYS_EL_CNT_4=month_2_4;  
    rename EL_DAYS_EL_CNT_5=month_2_5;  
    rename EL_DAYS_EL_CNT_6=month_2_6;  
    rename EL_DAYS_EL_CNT_7=month_2_7;  
    rename EL_DAYS_EL_CNT_8=month_2_8;  
    rename EL_DAYS_EL_CNT_9=month_2_9;  
    rename EL_DAYS_EL_CNT_10=month_2_10;  
    rename EL_DAYS_EL_CNT_11=month_2_11;  
    rename EL_DAYS_EL_CNT_12=month_2_12;
```

```
run;
```

```
data ps09_allstates;
```

```
    set in1.ps2009 (keep=MSIS_ID STATE_CD EL_DOB EL_SEX_CD  
                  EL_DAYS_EL_CNT_1-EL_DAYS_EL_CNT_12);
```

```
    rename EL_DAYS_EL_CNT_1=month_3_1;  
    rename EL_DAYS_EL_CNT_2=month_3_2;  
    rename EL_DAYS_EL_CNT_3=month_3_3;  
    rename EL_DAYS_EL_CNT_4=month_3_4;  
    rename EL_DAYS_EL_CNT_5=month_3_5;  
    rename EL_DAYS_EL_CNT_6=month_3_6;  
    rename EL_DAYS_EL_CNT_7=month_3_7;  
    rename EL_DAYS_EL_CNT_8=month_3_8;  
    rename EL_DAYS_EL_CNT_9=month_3_9;  
    rename EL_DAYS_EL_CNT_10=month_3_10;  
    rename EL_DAYS_EL_CNT_11=month_3_11;  
    rename EL_DAYS_EL_CNT_12=month_3_12;
```

```
run;
```

```
proc sort data=ps07_allstates;
```

```
    by STATE_CD MSIS_ID;
```

```
run;
```

```
proc sort data=ps08_allstates;
```

```
    by STATE_CD MSIS_ID;
```

```
run;
```

```
proc sort data=ps09_allstates;
```

```
    by STATE_CD MSIS_ID;
```

```
run;
```

```
data ps_allstates;
```

```
    merge ps07_allstates ps08_allstates ps09_allstates;  
    by STATE_CD MSIS_ID;
```

```
    %macro cover(mon,days);  
    cover_&mon=(month_&mon > (&days/2));  
    %mend cover;
```

```
    %cover(1_1,31);
```

```
    %cover(1_2,28);
```



```
%cover(1_3,31);
%cover(1_4,30);
%cover(1_5,31);
%cover(1_6,30);
%cover(1_7,31);
%cover(1_8,31);
%cover(1_9,30);
%cover(1_10,31);
%cover(1_11,30);
%cover(1_12,31);
%cover(2_1,31);
%cover(2_2,29);
%cover(2_3,31);
%cover(2_4,30);
%cover(2_5,31);
%cover(2_6,30);
%cover(2_7,31);
%cover(2_8,31);
%cover(2_9,30);
%cover(2_10,31);
%cover(2_11,30);
%cover(2_12,31);
%cover(3_1,31);
%cover(3_2,28);
%cover(3_3,31);
%cover(3_4,30);
%cover(3_5,31);
%cover(3_6,30);
%cover(3_7,31);
%cover(3_8,31);
%cover(3_9,30);
%cover(3_10,31);
%cover(3_11,30);
%cover(3_12,31);

run;

data all_append_allstates;
  merge both_allstates(in=x) ps_allstates;
  by STATE_CD MSIS_ID;
  if x;

  dob_m=substr(left(EL_DOB),5,2);
```

```

dob_y=substr(left(EL_DOB),1,4);
dob_d=substr(left(EL_DOB),7,2);
format dob mmddy8.;
dob=mdy(dob_m,dob_d,dob_y);

srvc_m=substr(left(srvc_bgn_dt),5,2);
srvc_y=substr(left(srvc_bgn_dt),1,4);
srvc_d=substr(left(srvc_bgn_dt),7,2);
format service mmddy8.;
service=mdy(srvc_m,srvc_d,srvc_y);

age=(service-dob)/365.25;

if age^=.;
if age < 16;
if age > 2;

if EL_SEX_CD in ('M','F');

if mdy(1,1,2008) le service le mdy(6,30,2009);
drop EL_DOB;
run;

data all_append_allstates;
set all_append_allstates;

serv_month=srvc_m+(srvc_y-2007)*12;

check_cover4=0;

array days_cov cover_1_1-cover_1_12 cover_2_1-cover_2_12 cover_3_1-cover_3_12;
array managed mcare_1_1-mcare_1_12 mcare_2_1-mcare_2_12 mcare_3_1-mcare_3_12;
array monthdays month_1_1-month_1_12 month_2_1-month_2_12 month_3_1-month_3_12;

do i=5 to dim(days_cov);
    if i=serv_month then do;
        if days_cov(i-4)=1 then check_cover4=1;
    end;
end;

run;

```

## State PE/PI Classification Test

```
data states;
  set states;

  CovAVG1=(CovPE1+CovPI1)/2;
  CovAVG2=(CovPE2+CovPI2)/2;
  CovAVG3=(CovPE3+CovPI3)/2;

  if abs(CovPE1-Apx1)<abs(CovPI1-Apx1) and abs(CovPE1-Apx1)<abs(CovAVG1-Apx1) then
InfCov1=CovPE1;
  if abs(CovPE2-Apx2)<abs(CovPI2-Apx2) and abs(CovPE2-Apx2)<abs(CovAVG2-Apx2) then
InfCov2=CovPE2;
  if abs(CovPE3-Apx3)<abs(CovPI3-Apx3) and abs(CovPE3-Apx3)<abs(CovAVG3-Apx3) then
InfCov3=CovPE3;

  if abs(CovPI1-Apx1)<abs(CovPE1-Apx1) and abs(CovPI1-Apx1)<abs(CovAVG1-Apx1) then
InfCov1=CovPI1;
  if abs(CovPI2-Apx2)<abs(CovPE2-Apx2) and abs(CovPI2-Apx2)<abs(CovAVG2-Apx2) then
InfCov2=CovPI2;
  if abs(CovPI3-Apx3)<abs(CovPE3-Apx3) and abs(CovPI3-Apx3)<abs(CovAVG3-Apx3) then
InfCov3=CovPI3;

  if abs(CovAVG1-Apx1)<abs(CovPE1-Apx1) and abs(CovAVG1-Apx1)<abs(CovPI1-Apx1) then
InfCov1=CovAVG1;
  if abs(CovAVG2-Apx2)<abs(CovPE2-Apx2) and abs(CovAVG2-Apx2)<abs(CovPI2-Apx2) then
InfCov2=CovAVG2;
  if abs(CovAVG3-Apx3)<abs(CovPE3-Apx3) and abs(CovAVG3-Apx3)<abs(CovPI3-Apx3) then
InfCov3=CovAVG3;
run;
```