

```
DATA OntarioF;
INPUT Age$ Pop: Diabetes;;
DATALINES;
18-34 1499360 16600
35-49 1438551 61300
50-64 1519258 170200
>=65 1373033 233600
;
DATA OntarioM;
INPUT Age$ Pop: Diabetes;;
DATALINES;
18-34 1588773 32100
35-49 1379456 62500
50-64 1479350 223100
>=65 1136265 279900
;
DATA Canada;
INPUT Age$ Pop: Diabetes;;
DATALINES;
18-34 7706705 93200
35-49 7401067 323200
50-64 7769520 845400
>=65 6595070 1217900
;
RUN;

/* Direct Standardization: Calculate DAR (Crude Rate per 100,000 persons) */
/* Add new columns with gender*/
DATA OntarioFb;
SET OntarioF;
Gender = 'Female';
RUN;
DATA OntarioMb;
SET OntarioM;
Gender = 'Male';
RUN;
/* Merge the Canada and Cuba datasets */
DATA MergedData;
SET OntarioFb OntarioMb;
RUN;

/* Input Reference Population */
PROC STD RATE DATA=MergedData REFDATA=Canada METHOD=direct STAT=rate(mult=100000) PLOTS=none;
POPULATION GROUP=Gender EVENT=Diabetes TOTAL=Pop;
REFERENCE TOTAL=Pop;
STRATA Age / stats;
RUN;

/* Indirect Standardization: Calculate overall SMR for Women using Canada as reference */
PROC STD RATE DATA=OntarioF REFDATA=Canada METHOD=indirect STAT=rate(mult=100000) PLOTS=none;
POPULATION EVENT=Diabetes TOTAL=Pop;
REFERENCE EVENT=Diabetes TOTAL=Pop;
STRATA Age;
RUN;

/* Indirect Standardization: Calculate overall SMR for Men using Canada as reference */
PROC STD RATE DATA=OntarioM REFDATA=Canada METHOD=indirect STAT=rate(mult=100000) PLOTS=none;
POPULATION EVENT=Diabetes TOTAL=Pop;
REFERENCE EVENT=Diabetes TOTAL=Pop;
STRATA Age;
RUN;
```