**RI Covid Epidemiologist/SAS Programmer Homework Assignment.**

**Background**: When the RI Department of Health receives notification that someone has tested positive for Covid-19, the department calls that person (“origin case”) to collect any close contacts they may have had during their infectious period. The department then calls the contacts to let them know they may have been exposed to Covid-19 and to encourage them to be tested within days 5-10 of their quarantine period. The quarantine period is defined to be the 14 days after exposure to the origin case.

**Task**: Using the two datasets below (partial data shown), write SAS Code that would answer the following question: What proportion of close contacts were tested in the 5-10 day window of their quarantine period? Include documentation throughout your code. Comment on any assumptions you make or questions you would ask if you had the opportunity to iterate on this task. Include the SAS Code that would create output suitable to answer this question.

**Contacts Dataset:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Person ID | Exp\_Date (Exposure Date) | Origin Case ID | Name | Type of Exposure |
| 1 | 12/20/20 | 100 | Joe Smith | Household |
| 1 | 9/30/20 | 135 | Joe Smith | Workplace |
| 2 | 1/5/21 | 168 | Maria Rojas | Education |
| 3 | 11/4/20 | 96 | Mary Hernandez | Workplace |
| 3 | 11/4/20 | 121 | Mary Hernandez | Workplace |
| 3 | 1/25/21 | 365 | Mary Hernandez | Household |
| … |  |  |  |  |

**Testing Dataset:**

|  |  |  |
| --- | --- | --- |
| Person ID | Test\_date (Date of Test) | Name |
| 1 | 12/29/20 | Joe Smith |
| 2 | 9/30/30 | Maria Rojas |
| 2 | 1/7/21 | Maria Rojas |
| 8 | 6/30/20 | Mike Rogers |
| 8 | 7/15/20 | Mike Rogers |
| 8 | 8/29/20 | Mike Rogers |
| 8 | 12/3/20 | Mike Rogers |
| … |  |  |