Exercise 5: Interpreting results from disaggregated death registration completeness calculations

Day 3: Thursday, 4 August 2022, 11:00-14:00 (Bangkok Time)

1. Poplandia recommended the MOH start collecting data for ethnicity. This data became available in 2018. Based on the results below, what are the two main groups that Poplandia should focus on to improve death registration completeness? Would each of these groups have similar policy interventions, or are they be different? Explain your thoughts.

The two key things that stand out are very low registration rates among indigenous infants (both male and female), and low registration rates among indigenous female adults. If efforts could only be targeted into two areas, these are primary candidates.

Policy interventions would differ between these two groups. For example, having registration offices in hospitals may improve registration of infant deaths (children often die in the first few days of life and many are still in hospital when this occurs). In this regard, efforts for strong linkages between MOH and the CRO are needed to improve registration.
Advocacy among the indigenous population and improved access may increase death registration for adults, particularly if women’s groups are targeted. However, registration differentials may be due to gender and equality. If property or inheritance is transferred through the male lineage, there may not be economic incentives to register female deaths. In this case, broader cultural change in improving gender equality, inheritance and access to property may be needed to improve registration of female deaths.

2. Upon completing the analysis of death registration completeness, Poplandia finds that death registration completeness for Marzian children age 1-4 is above 110%. As you know, Completeness above 100% is not possible.

   a. What are three reasons that the analysis could’ve resulted in this value?

   **More policy implications – who is being left behind???

   ![Graph showing death registration completeness by ethnicity and age group, Poplandia, 2018](image)

   1. It is important to check for duplicate registrations in this instance. It is possible that some children’s death got registered more than once. Civil registration Records should be checked that have the same birthdate and death date and other similar characteristics such as the same name or address or ethnicity. Duplicate record should be removed from the analysis.

   2. A. It is possible that the denominator (recorded deaths from MOH) did not accurately record ethnicity for all deaths. There may be some missing Marzian deaths in the denominator, which would artificially boost completeness above 100%. Perhaps there is a reason that this particular age group did not have ethnicity recorded completely or accurately. Further investigation is needed with MOH.

      B. Conversely, the CRO could have erroneously recorded ethnicity as Marzian, or
C. Definitions between MOH and CRO may be less aligned than previously believed. All require further investigation with the data collection entities.

3. Finally, it’s possible that there are very low numbers of deaths in this age group. A few errors in the records or a few missing data points could artificially skew the calculations above 100%. It’s important to check the number of Marzian deaths in both the numerator and denominator and make sure the values are high enough that a small number of errors won’t substantially change your results and interpretation.

3. Does the figure below support that there may be a problem with your ethnicity data? Why or why not?

The above figure shows us that consistently male Marzians have a death registration completeness of above 100%, in many of the age groups. This implies that there are problems with the ethnicity data for Marzians, particularly males. Further investigation should be done with all data collection entities to understand where the air may be coming from.