

MORTALITY ESTIMATES FOR SMALL AREAS IN ARGENTINA (2009-2011)

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BACKGROUND

Despite extensive work in developed countries, little is known about mortality differences in small areas over the Southern Cone.

In particular, in Argentina, mortality estimates and the knowledge of their levels and trends are limited, as in most countries of the region, by the quality and availability of data.

BACKGROUND

Recent studies focused on Brazil (Lima, Queiroz, and Sawyer 2014; Lima and Queiroz 2014; Freire 2015; Queiroz et al. 2017) have applied different methodologies to estimate mortality in the sub-national horizon

There are reasons to suspect that what is observed in Brazil can also occur in Argentina, despite the fact that both countries went through very different epidemiological transition processes

OBJETIVES

Considering that there are no precedents in the subject for the Argentine case, we estimate levels and structure of mortality in minor administrative areas in Argentina, during the period 2009-2011.

To that end, we observed mortality changes in selected states: Catamarca, Neuquén, Córdoba, Salta, Interior Buenos Aires and the 24 counties in the Greater Buenos Aires.

LITERATURE REVIEW

- Since 1914, the continuous rise in period life expectancy at birth (LEB), distinguished Argentina from the rest of Latin America. Due to early socio-economic development, high degree of urbanization and the expansion of formal education, mortality rates have been substantially reduced (Recchini de Lattes and Lattes 1975; Grushka 2014).
- After moderate at the beginning of the 20th century, a steady growth in LEB was distinguished and continued to increase until the 1960s. According to official data, this regular growing behavior, in both sexes, was interrupted around 1970 with an apparent setback of 1.8 years, compared to the previous decade.
- This phenomenon has not been adequately addressed yet. Müller and Accinelli (1980) attributed it to an arrival at a threshold in the mortality gains imposed by the socioeconomic conditions. This hypothesis suggested that health progress lost its independence from levels of economic development.
- This interpretation was based on the idea that the main ceilings reached in LEB values were found in the regions with the highest socio-economic development, while in the rest of the areas, which are relatively less developed, evidence a rise in LEB.
- The 1969-1971 mortality table showed a mortality increase that affected especially males. Male LEB decrease with respect to that recorded for the period 1959-1961 in the regions of greater relative development, while it increase in less developed regions, where the level of LEB was lower in the previous period.
- Although moderate compared to previous years, the advances in the LEB that would occur in the subsequent period, despite the deterioration of the socioeconomic conditions of Argentina as a whole until 2003, would show the limits of such hypothesis. Since 1980, LEB begins again trend consistent with the decline in mortality.
- This period was followed by a recovery of the upward trend, but in a slower way, reaching a LEB of 75.34 years (both sexes) in 2009.

QUESTIONS AND HYPOTHESIS

- This article proposes to contrast the link, at a dis-aggregated level, between levels and structure of mortality at the sub-national level that the theoretical approximations pondered in different measure as linked, in the long term, with economic development.
- What role plays the dynamics of small area mortality in the configuration of mortality levels at the regional and total country levels? Is there a deceleration of the decline in mortality in Argentina due to the co-existence of socially heterogeneous groups, lagging behind in the process of epidemiological transition? Are differential patterns associated with different economic development models applied throughout different sociology-historical cycles?
- Main hypothesis: the levels of mortality and the rate of decline, at the provincial and total country levels, are dependent on the growing social inequality, a possible aspect to be glimpsed through the sub-national observation of mortality.

DATA & METHODS

Official data on deaths elaborated by the Health Secretary (DEIS).

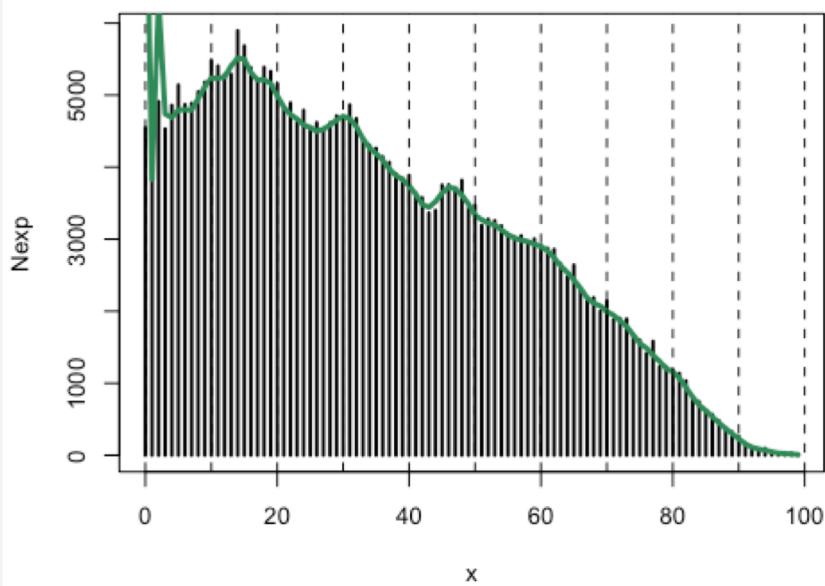
Empirical Bayesian method, in order to improve the statistical efficiency of mortality rate estimators, decreasing small area variance (Efron and Morris 1972; Marshall 1991; Longford 1999; Assunção et al. 2005).

PRELIMINARY RESULTS

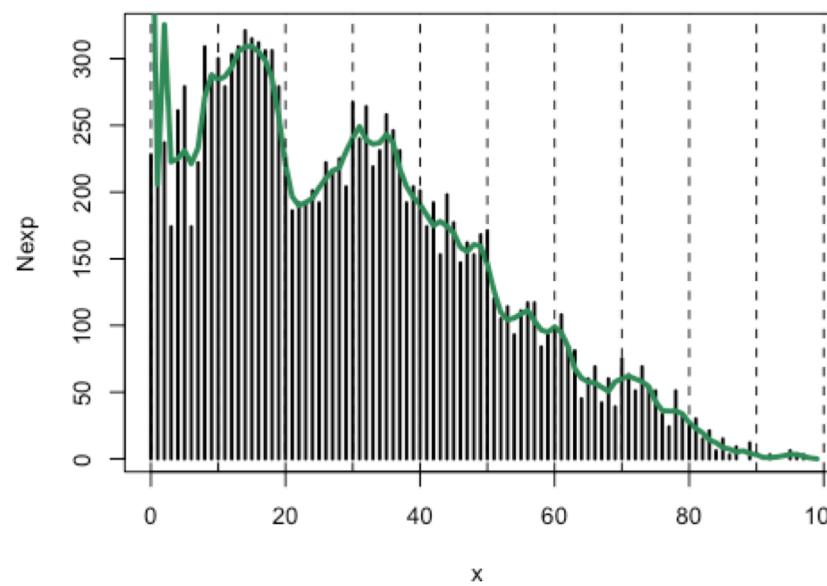


Ajuste de Expuestos

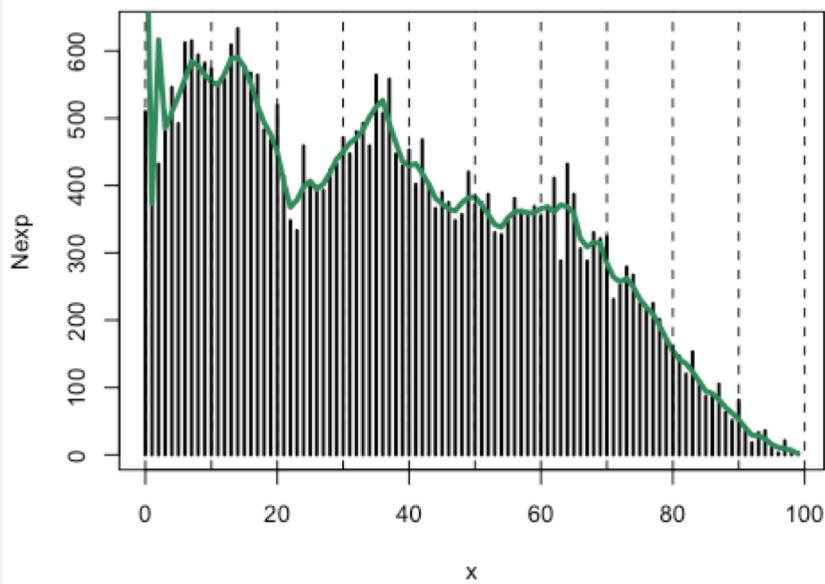
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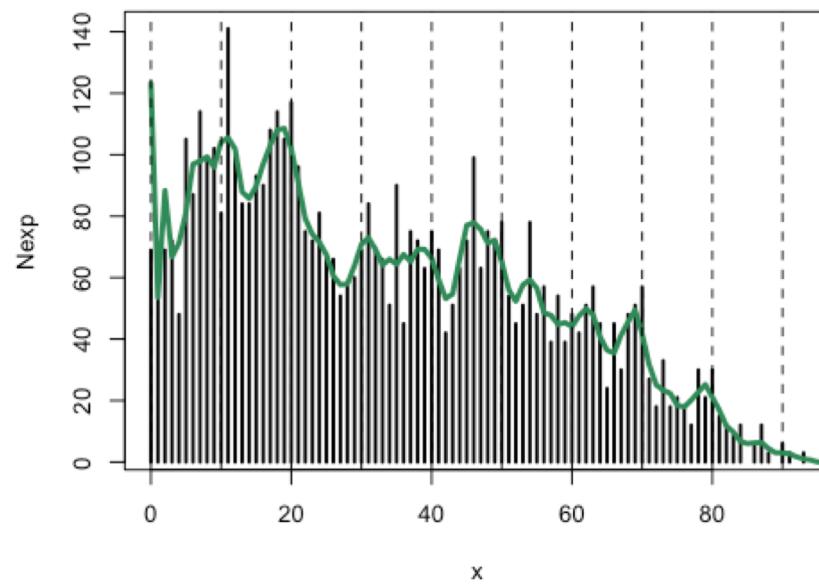
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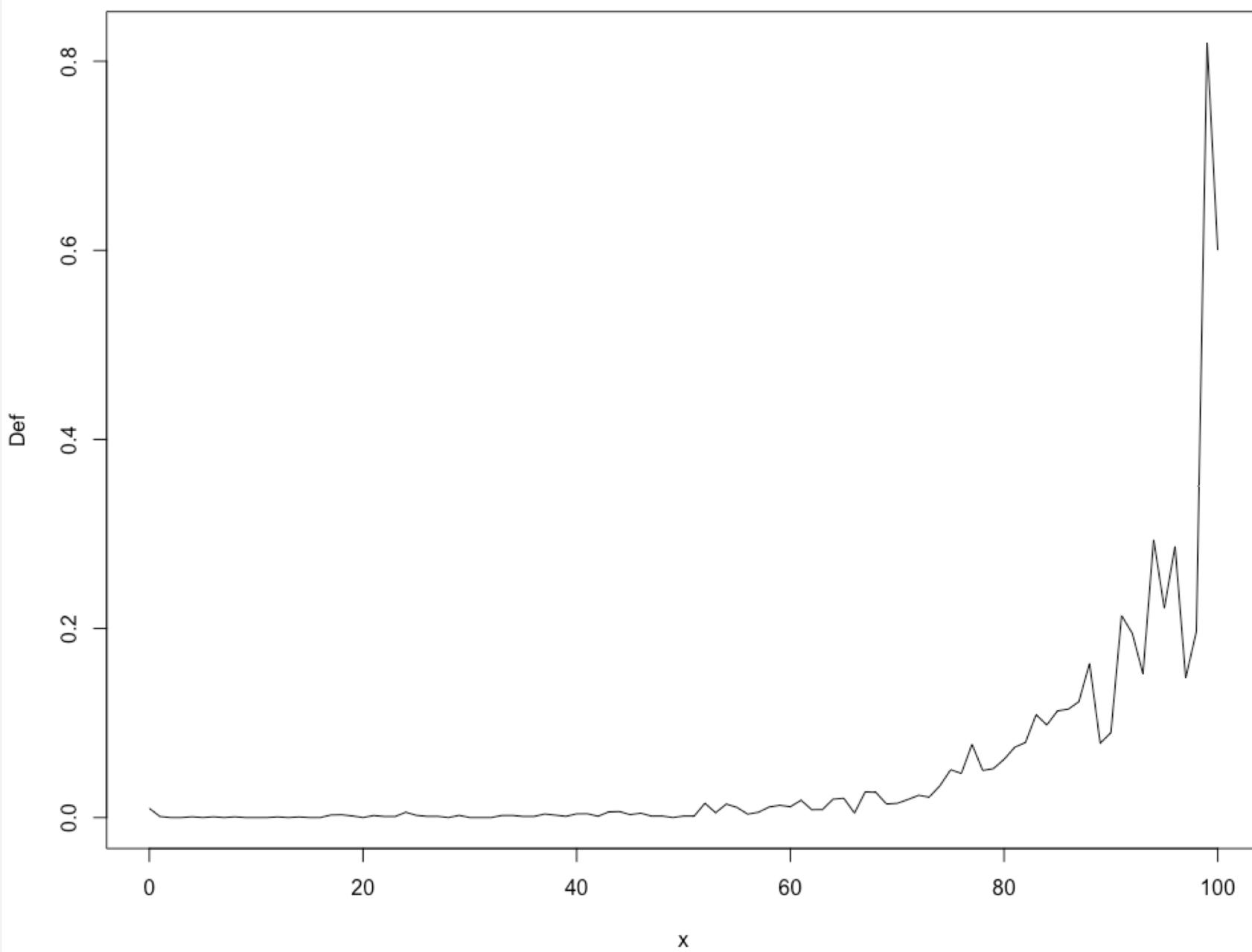
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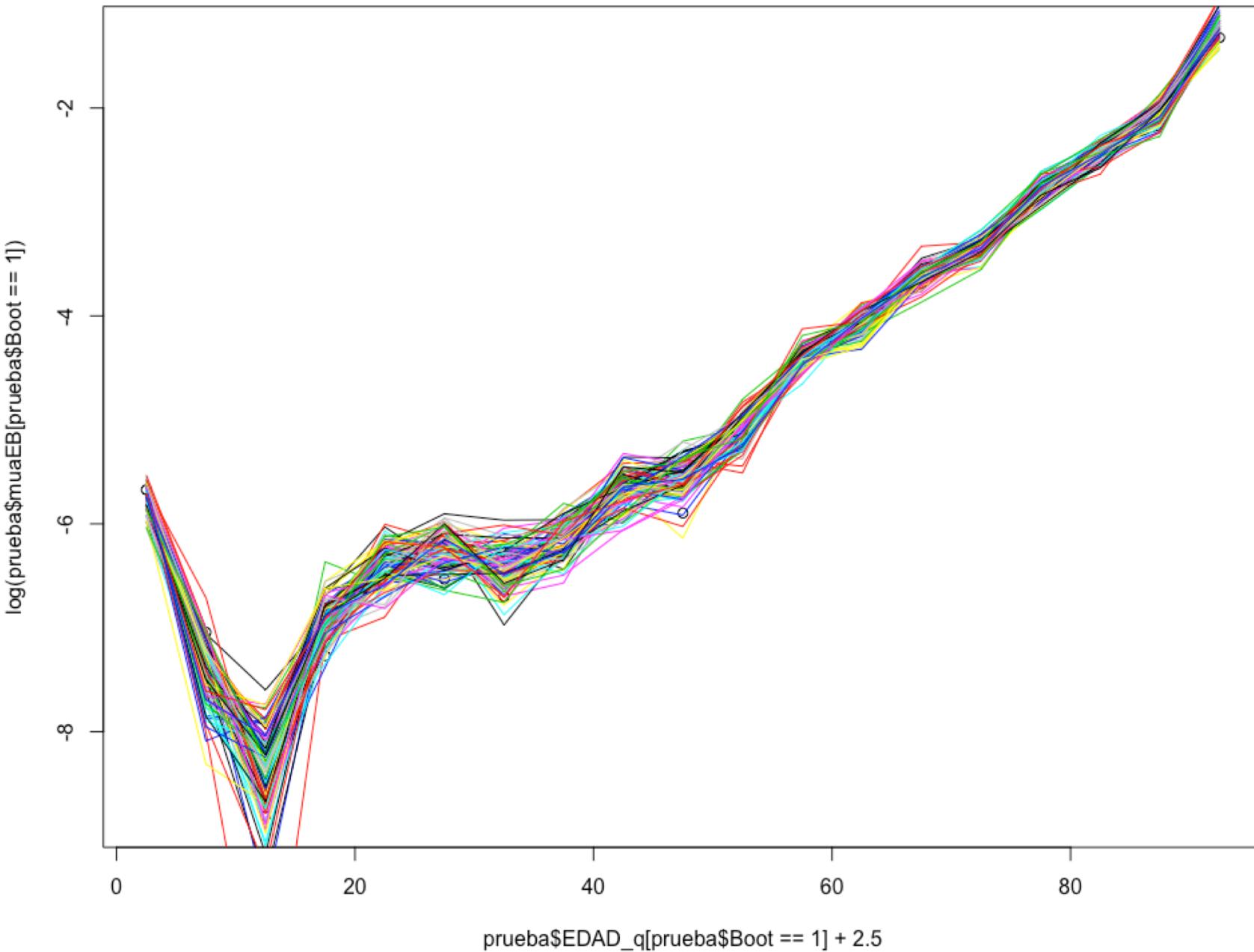


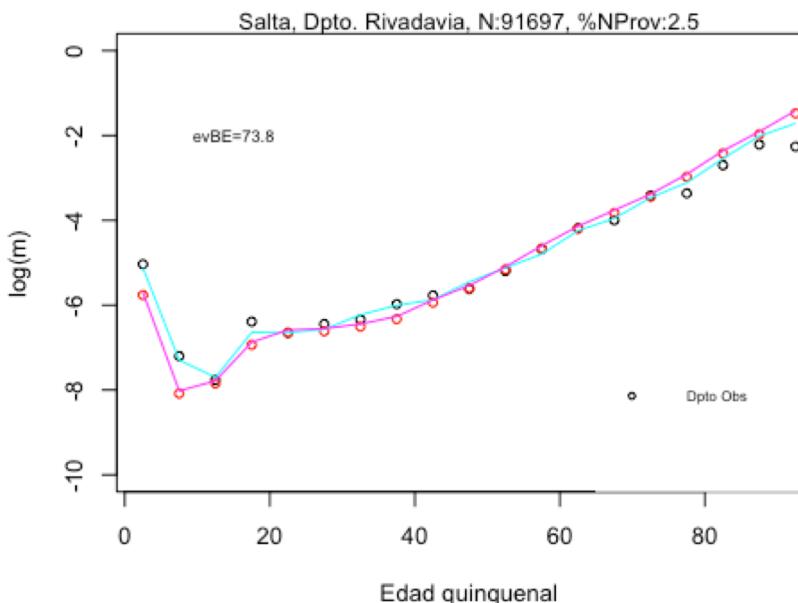
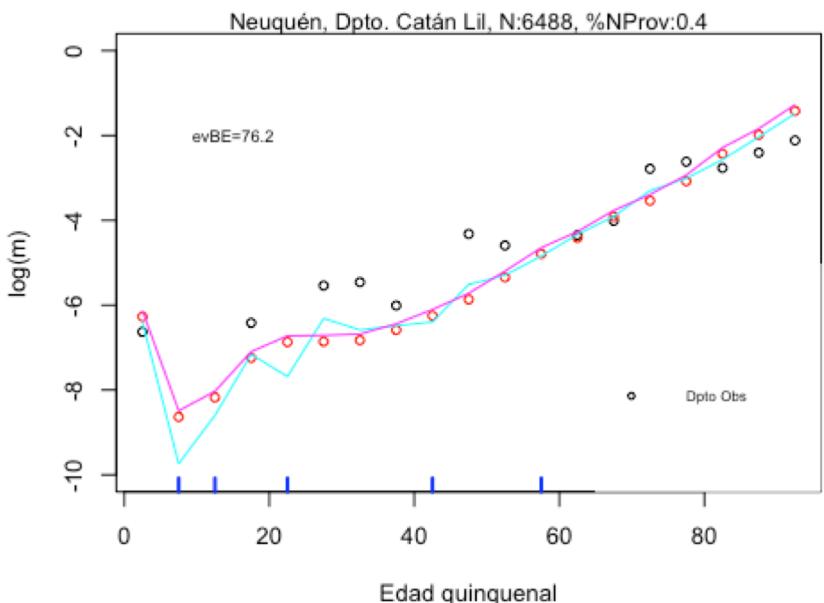
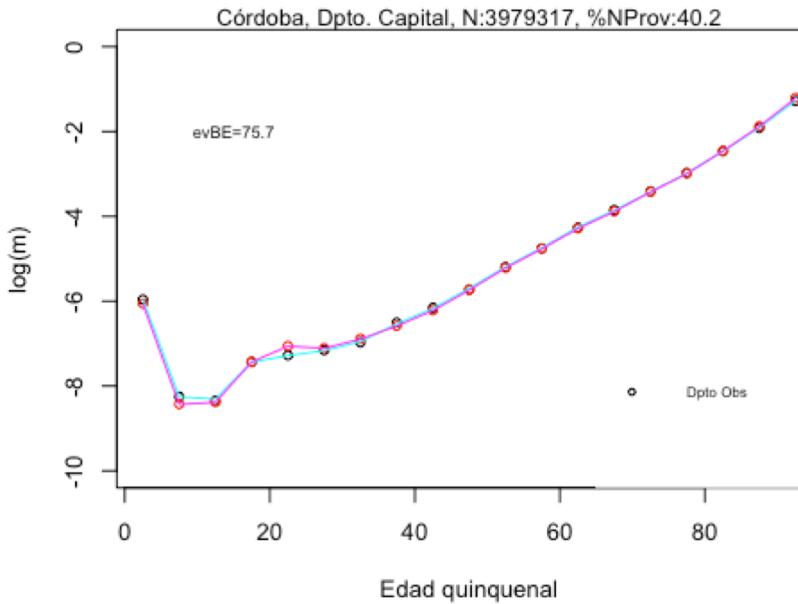
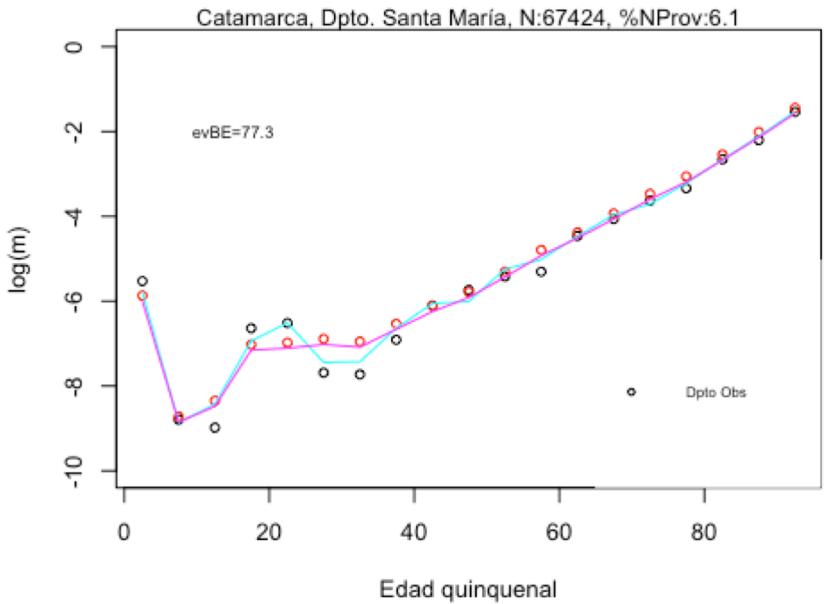
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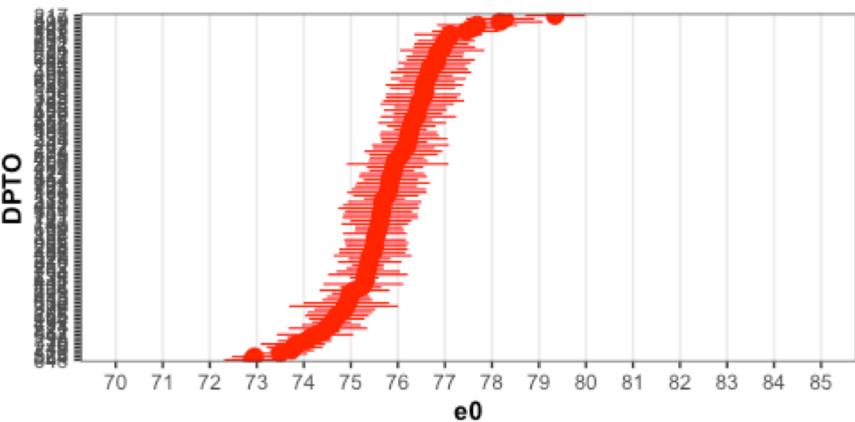
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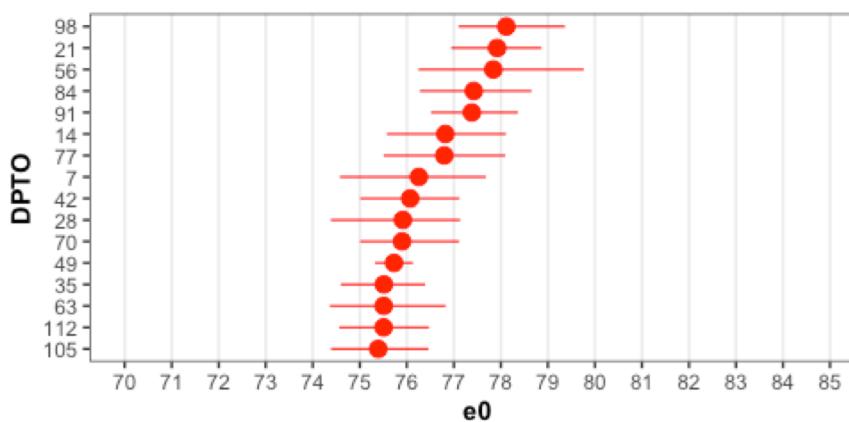




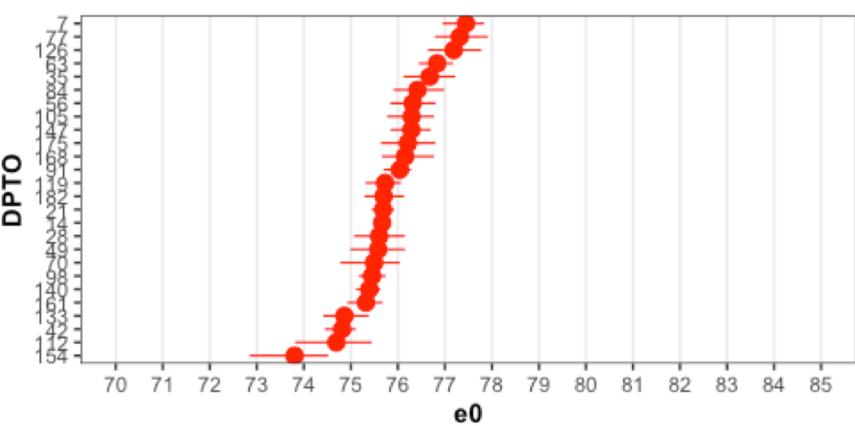
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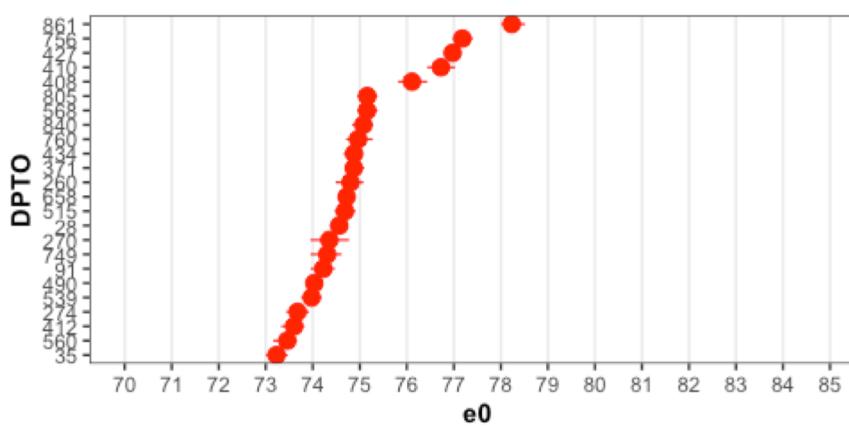
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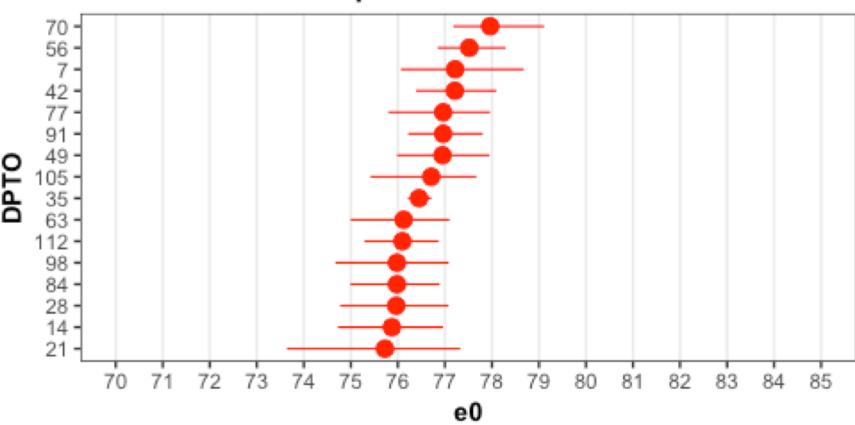
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Provincia de Neuquén



Provincia de Salta

