

1 **S2 Text: Fertility decline vs improvement in wellbeing in** 2 **MACs and ODCs: other possible measures**

3 Life Expectancy (LE) is a possible alternative proxy for overall health and wellbeing, and is
4 a component of the UN Human Development Index. ISR has the advantage of being a more
5 immediate reflection of health status whereas life expectancy (LE), with which it is highly
6 correlated, reflects both current and past health conditions. The correlation between ISR and
7 LE over 1950 to 2015 for all 98 countries in this study is 0.93 (Pearson correlation measure).
8 In addition, Angeles (2010) investigated lagged relationships in 118 developed and developing
9 nations between 1960 and 2000. He found that, while both measures predict TFR better if they
10 are lagged, the estimated average lag is shorter for ISR (10 years) than for LE (20 years).

11 Educational level is also a possible proxy for wellbeing. Data on years of schooling are
12 available for 1950 onwards [1]. Unfortunately, data are not available for 30% of MACs and 10%
13 of ODCs. A second problem is that years of schooling may imply different levels of learning and
14 skills in different countries and regions. [2] show, for example, that a 9th grader in Honduras
15 is more than 6 years behind an average 9th grader in Singapore in terms of cognitive skills as
16 measured by standard tests. They suggest this difference reflects not only the schools themselves,
17 but also the cultural milieu. Cognitive skills are only one aspect of the benefits of schooling, but
18 other benefits are also likely to vary among countries. By contrast, the number of infant deaths
19 per 1000 live births is an unambiguous variable. [3] provide evidence that mother's education
20 affects infant mortality.

21 **References**

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25 *Science*. 2016;351(6271):344–345. doi:10.1126/science.aad7796.
- 26 [3] Fuchs R. Education or wealth: Which matters most for reducing child mortality in devel-
27 oping countries. *Vienna Yearbook of Population Research*. 2010;8:175–199.