Children Mortality in Iran: Moving Ahead with the Sustainable Development Goals

Erfan Ayubi[1], Kamyar Mansori[2], Mahin Ahmadi Pishkoohi[3], *Salman Khazaei[4]

[1]PhD Candidate in Epidemiology, Department of Epidemiology, School of Public Health, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
[2]PhD Candidate in Epidemiology, Department of Epidemiology, School of Medicine, Kurdistan University of Medical Sciences, Sanandaj, Iran.
[3]PhD Candidate in Epidemiology, School of Public Health, Alborz University of Medical Sciences, Karaj, Iran.
[4]PhD Candidate in Epidemiology, Department of Epidemiology, School of Public Health, Hamedan University of Medical Sciences, Hamedan, Iran.

Dear editor-in-chief,

A secular milestone is approached by the world in line of reaching Millennium Development Goals (MDGs). After December 2015, a new of flexible and global Sustainable Development Goals (SDGs) were set, replace MDGs by SDGs. Infant mortality rate (IMR) is a pivotal indicator of development in a given country that embedded in Millennium Development Goal (MDG). After that in manner of strong clinical reasons, IMR has been replaced by the neonatal mortality rate (NMR); here, we were interested to write a concise chronological fantastic story about what had happened on IMR's life span in Iran.

First in other regions, although inequality between countries is considerable for mortality rate in children, so that six countries account for 50% of worldwide deaths in children under 5 years (1), but totally child mortality is decreasing worldwide (2). The fourth Millennium Development Goal (MDG) was the reduction of child mortality by two-thirds between 1990 and 2015 (3). In fact, IMR is one of the most important indices that for determine the level of economic status, culture, society, as well as the public health of countries (4). Also child's mortality is the symbol of development and have important role in population growth (5). From 1970 to 2010 worldwide neonatal and post-neonatal mortality rates have decreases by 2.1% and 2.2% per year respectively (6). The annually rates of change from 1990 to 2013 ranged from −6.8% to 0.1%. For 99 of 188 countries, including 43 of 48 countries in sub-Saharan Africa, had faster decreases in child mortality during 2000–2013 than during 1990–2000 (2). Nearly half of all under-five deaths are associated with under nutrition (7). Neonatal mortality (NM) is more associated with biological factors such as congenital anomalies and sensitive to proximal determinants (maternal factors, nutrient deficiency, infections and injuries) while Post-neonatal mortality (PNM) is more influenced by distal determinants (education, employment, national income and income distribution) (8).

Corresponding Author:

Salman Khazaei (MSc, PhDc), Department of Epidemiology, School of Public Health, Hamadan University of Medical Sciences, Hamadan, Iran.

Email: Salman.khazaei61@gmail.com

Results of a study showed that Total fertility rate (TFR), GDP per capita (current US$), public health expenditure as % of total health expenditure were identified as the main factors affecting on infant mortality in Petroleum Exporting Countries (OPEC) over the ten years (2004-2013) (9). Because of heterogeneity in determinants the 1 to 50 months mortality should be analyzed in two age groups including post neonatal deaths (1-11 months) and childhood deaths (1–4 years) (3). Second in Iran, trend of child mortality and IMR statistics are presented in (**Table.1**) and illustrated in (**Figure.1**). Iran has made notable progress towards reaching the MDGs by child mortality rate from 57.5 to 15.5. The Average Annual Percent Change (AAPC) for IMR and child mortality showed that they have a decreasing trend so that are reached to -5 and -5.4 in 2015 respectively (**Table.1**).

Conclusion: Looking ahead, the good experience in child mortality and IMR reflects concerns that Iran will have to confront in the post-2015 period to achieve a Better, more inclusive and sustainable rates in neonatal mortality rate and even other SDGs.

Key Words: Child Mortality, Iran, Sustainable Development Goals, Trend.

Table 1: Number and local of change points, Annual Percent Change (APC) and Average Annual Percent Change (AAPC) for Infant mortality rate in Iran from 1971-2015

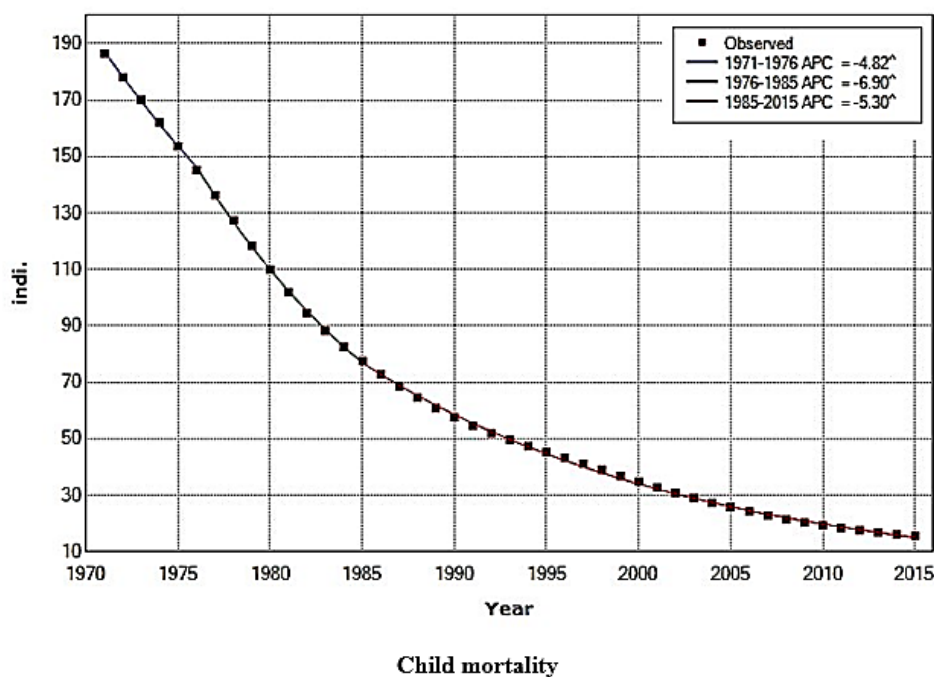| Index	Number of change points (Year)	Years	APC	AAPC	P-Value
Infant mortality rate	2 (1989,1997)	1971-1989	-5.6^ (-5.7,-5.5)	-5.1	<0.05
		1989-1997	-4.1^ (-4.7,-3.5)	-5.3	
		1997-2015	-5.1^ (-5.2,-5.0)	-5	
Child mortality rate	2 (1976,1985)	1971-1976	-4.8^ (-5.8,-5.3)	-5.6	<0.05
		1976-1985	-6.9^ (-7.4,-6.4)	-5.7	
		1985-2015	-5.3^ (-5.4,-5.2)	-5.4	

Infant mortality
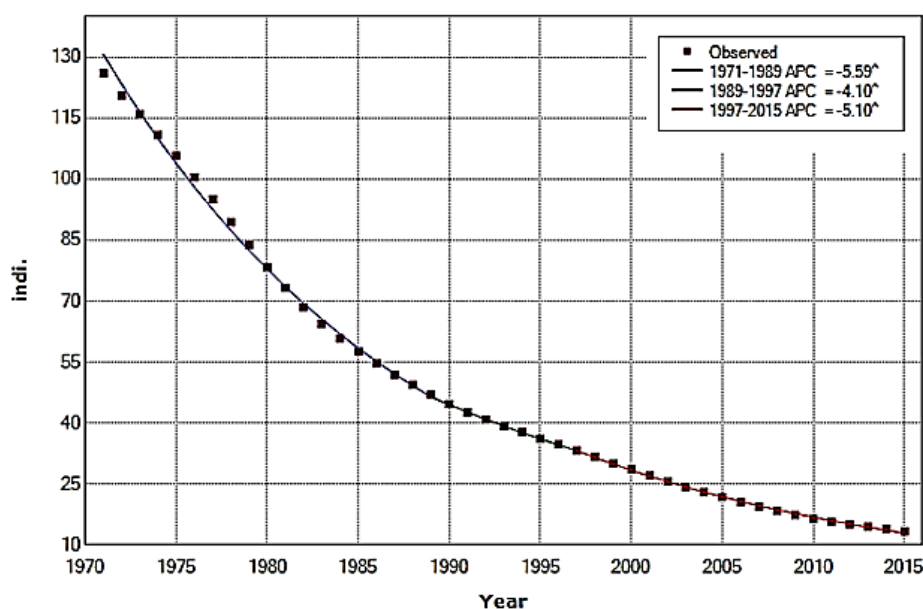
Child mortality

Fig.1: Trend and Annual Percent change (APC) for Infant mortality rate in Iran from 1971-2015

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