

BACKGROUND:

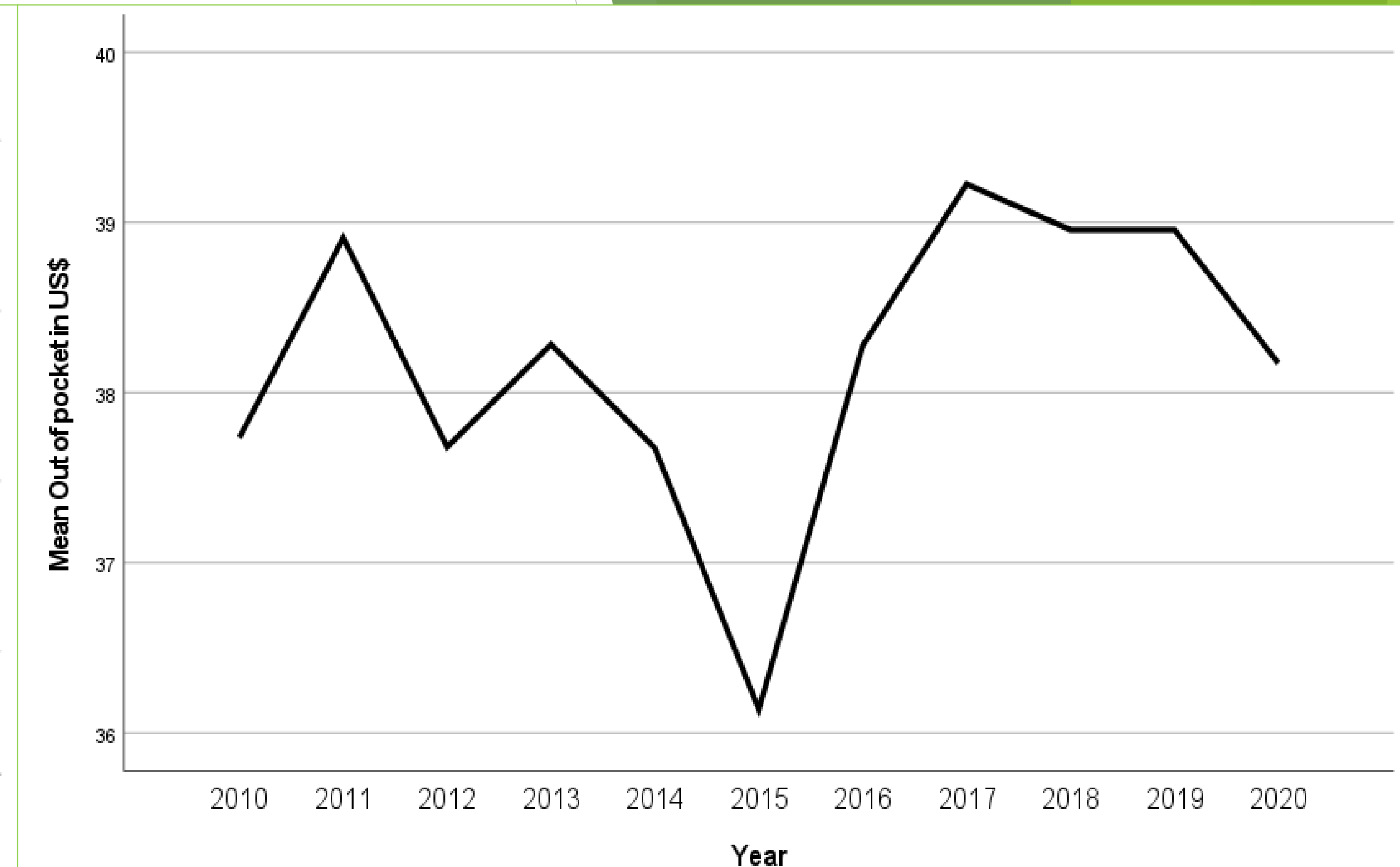
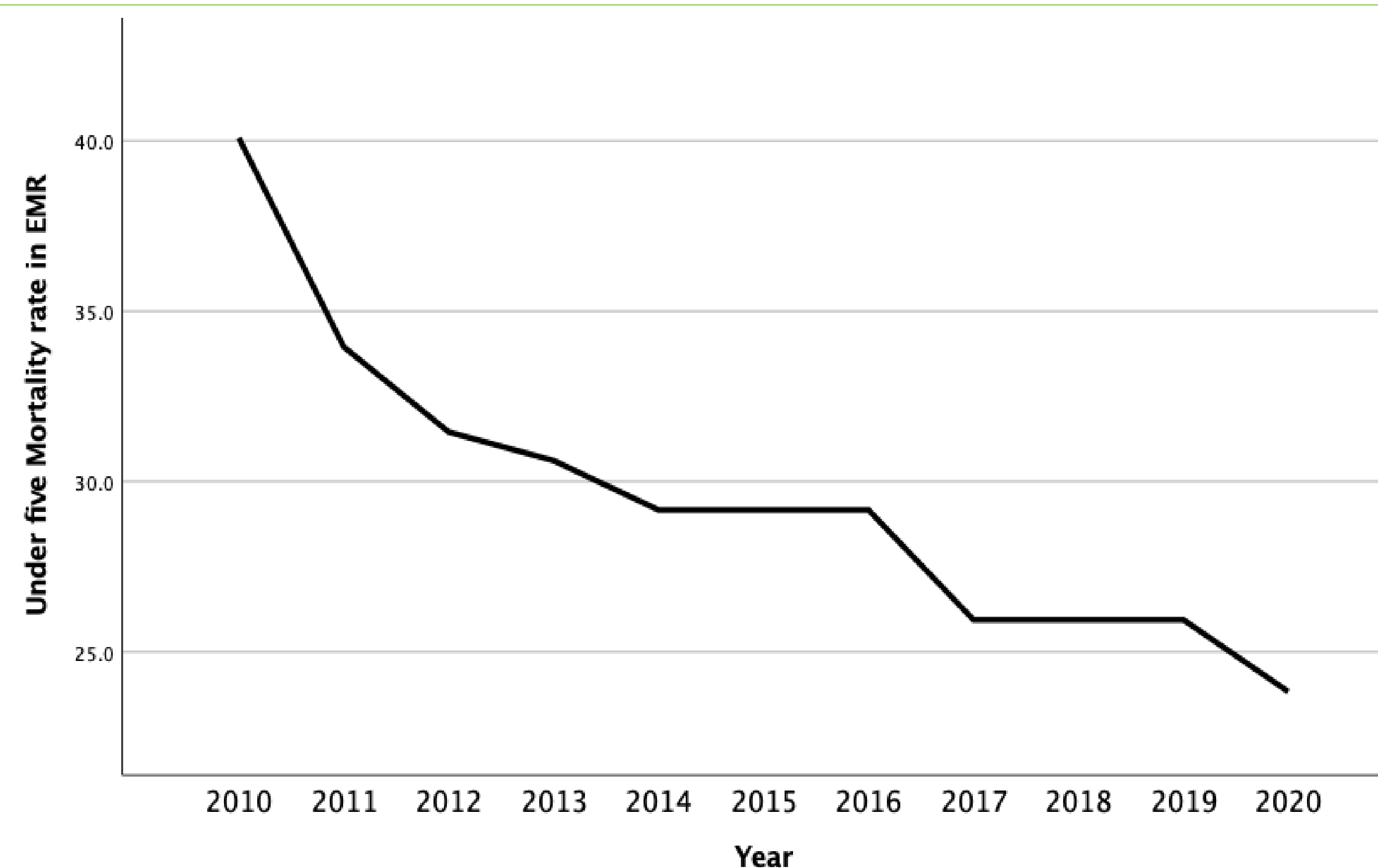
- Under five mortality is one of the major Public Health challenges in the Eastern Mediterranean Region (EMR).
- Socioeconomic, Demographic, clinical, and healthcare systems variables are related to under 5 mortality.¹⁻³
- Aim of the study is to investigate associations between health care expenditure and under five mortality rates in the EMR countries and to identify confounding factors in explaining these associations.

METHODS:

- National-level under five mortality data for the EMR countries collected from publicly accessible WHO databases for the period 2010-2020.
- A number of confounding factors has been identified through literature review, and data collected from the WHO and World Bank online databases.
- Descriptive analysis of the dependent and independent variables is provided.
- Bivariate and multivariate analyses were conducted to investigate the associations.
- Given the count data nature of the dependent variable, a negative binomial regression was estimated.

RESULTS:

- Decreasing trend in under five mortality in the EMR countries during 2010-2020.
- Crude analyses showed - per capita healthcare expenditure is negatively and out-of-pocket cost is positively associated with under five mortality.
- After adjusting for a number of confounding factors, current health expenditure, access to sanitation, access to safe drinking water, number of hospital beds and child immunization showed statistically significant associations with under five mortality.



	EXP(B)	P-Value	Lower 95% CI	Upper 95%CI
Out of pocket costs (US\$)	0.999	0.338	0.996	1.001
Health expenditure as % of GDP (US\$)	0.999	<0.001	0.999	0.999
Access to sanitation	0.978	<0.001	0.974	0.982
Access to water	1.016	<0.001	1.011	1.022
Hospital beds per 10000 population	0.960	<0.001	0.950	0.970
Child immunization	0.993	0.002	0.988	0.997
Access to health care services per 10000 population	0.993	0.367	0.978	1.008
Year 2011	0.872	0.153	0.723	1.052
Year 2012	0.559	0.10	0.359	0.870
Year 2013	0.616	0.002	0.454	0.838
Year 2014	0.687	<0.001	0.572	0.826
Year 2015	0.708	<0.001	0.593	0.845
Year 2016	0.703	<0.001	0.587	0.842
Year 2017	0.625	<0.001	0.521	0.750
Year 2018	0.696	<0.001	0.581	0.834
Year 2019	0.697	<0.001	0.582	0.835
Year 2020	0.630	<0.001	0.519	0.765

LIMITATIONS:

- Lack of data for some variables
- Not available data for some of the EMRO countries due to conflict areas.
- Our data are panel data which means, a mixed model approach is needed.

CONCLUSIONS:

Healthcare policy makers in the EM region should take necessary steps to address a number of factors including healthcare expenditure in order to improve population health outcome such as under-five mortality rates.

References

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