

Spatial-temporal trends of breastfeeding indicators in Jordan for last 2 decades

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Introduction

Optimal breastfeeding could prevent 12% deaths (800,000 lives) in under-5 children living in low-middle-income countries every year. Subnational spatially explicit evidence on breastfeeding is instrumental in prioritizing interventions. However, such evidence is scant for Jordan. We investigate spatial-temporal trends of exclusive breastfeeding under 6 months and early initiation of breastfeeding in Jordan in the last two decades.

Methods

We analyzed all available—4 rounds of— cross-sectional geospatial and survey data of Jordan Population and Family Health Survey. For survey data, we used STATA 18 SE. Per DHS sampling cluster, we calculated early initiation of breastfeeding (EIBF) and exclusive breastfeeding under 6 months (EBF). For geospatial data, we used ArcGIS Pro 3.1.4. The number of clusters varied from survey to survey (min: 498, max: 970). We conducted a hot spot analysis by calculating the Getis-Ord G_i^* statistic. We used fixed distance band and Euclidean distance as key parameters for this analysis.

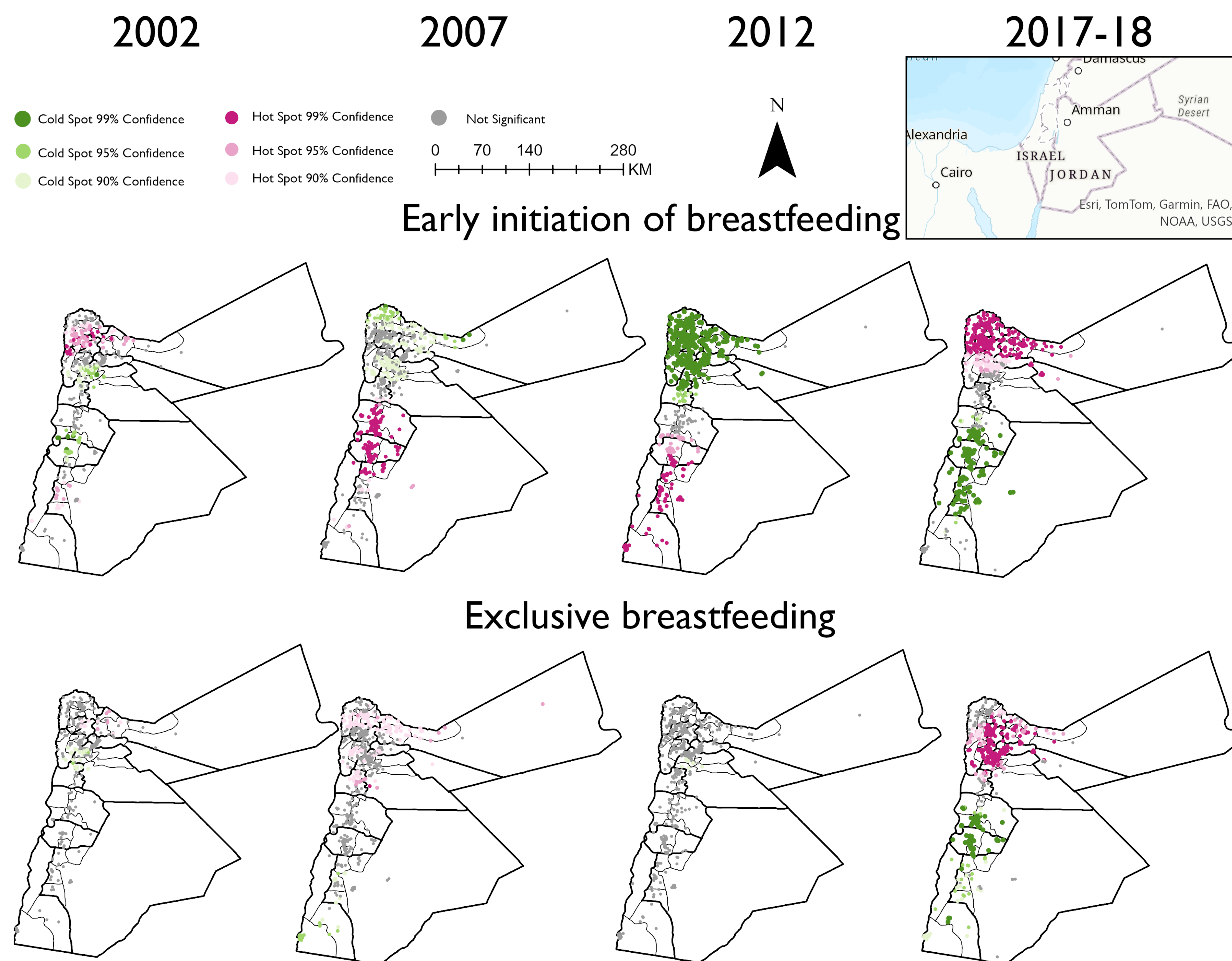
Key Findings

Northern and Southern Jordan exhibits distinct patterns across time for two breastfeeding indicators. The center of hot spots of EIBF shifts across time, from North to Central and to then back to North. The center of hot spots of EBF stay in the North, except for 2012. Of note, the city of Amman had cold spot clusters for EBF for 2 rounds and EIBF for 3 rounds.

Within the same survey year, the hot spots of EIBF usually track with the hot spots of EBF. For year 2012 and EBF, most clusters show no significant spatial autocorrelations.

Results of secondary data analysis

Each dot is a sampling cluster, representing 200-500 households



Conclusions

Northern Jordan is associated with hot spot clusters for EBF. The city of Amman and the district Un El-Basatien of Amman are associated with cold spot clusters for EBF. Breastfeeding interventions should prioritize these regions.

References

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