HEALTH, MORBIDITY, AND MORTALITY WORKING GROUP: EAPS
Monthly contributions to sex, residence, and regional mortality differentials in India

Suryakant Yadav[1], Dilip TR[1], Pawan Kr Yadav[1], Yadav Nilesh Jagannath[1], Neha Yadav[2], Udaya S. Mishra[1]

suryakant11@gmail.com ; drsuryakantyadaviips@gmail.com

[1]International Institute for Population Sciences, Mumbai, [2]Jawaharlal Nehru University, New Delhi, India

Introduction

Seasonal variation in mortality has been investigated in many countries but not until recently in India. There are some base for reckoning that in India seasonal mortality pattern may be different than other developed nations. The debate continues as to what role was played by other factors such as regional and locational factors and the significance of seasonal mortality variations in the annual mortality levels in India. In what way do these factors intercorrelate and form a causal relationship? This study attempts to throw light on this question by analyzing monthly mortality in India.

Objective

❖ Examining the regional variation in e_0, G_0 and $e^\dagger$.

❖ Assessing the age specific contributions to rural-urban differentials in e_0 by sex, region, age-groups and months.

❖ Assessing the age specific contributions to male-female differentials in e_0 by residence, regions, age-groups and months.

❖ Assessing the age/month specific contributions to sex/rural-urban differentials in e_0 by sex, region, residence, age-groups and months.

Methods

❖ ASDR was computed by sex, residence, for India as a whole and six regions namely, north, south, east, west, central, and northeast adopted in NFHS reports

❖ The ASDRs of India and these regions are further split by months

❖ we constructed life tables for India as whole and six regions using Chiang (1972) methodology

❖ The measures life expectancy at birth (e_0), lifespan disparity ($e_0^\dagger$), a measure of the average number of life years lost at birth and Gini coefficient at birth (G_0) are calculated

Figure 1: Scatter plot of Gini coefficients (G_0) and life expectancy at birth (e_0), India, 2015-16

Figure 2: Correlation between lifespan disparity ($e^\dagger$) and Gini coefficient (G_0), India, 2015-16

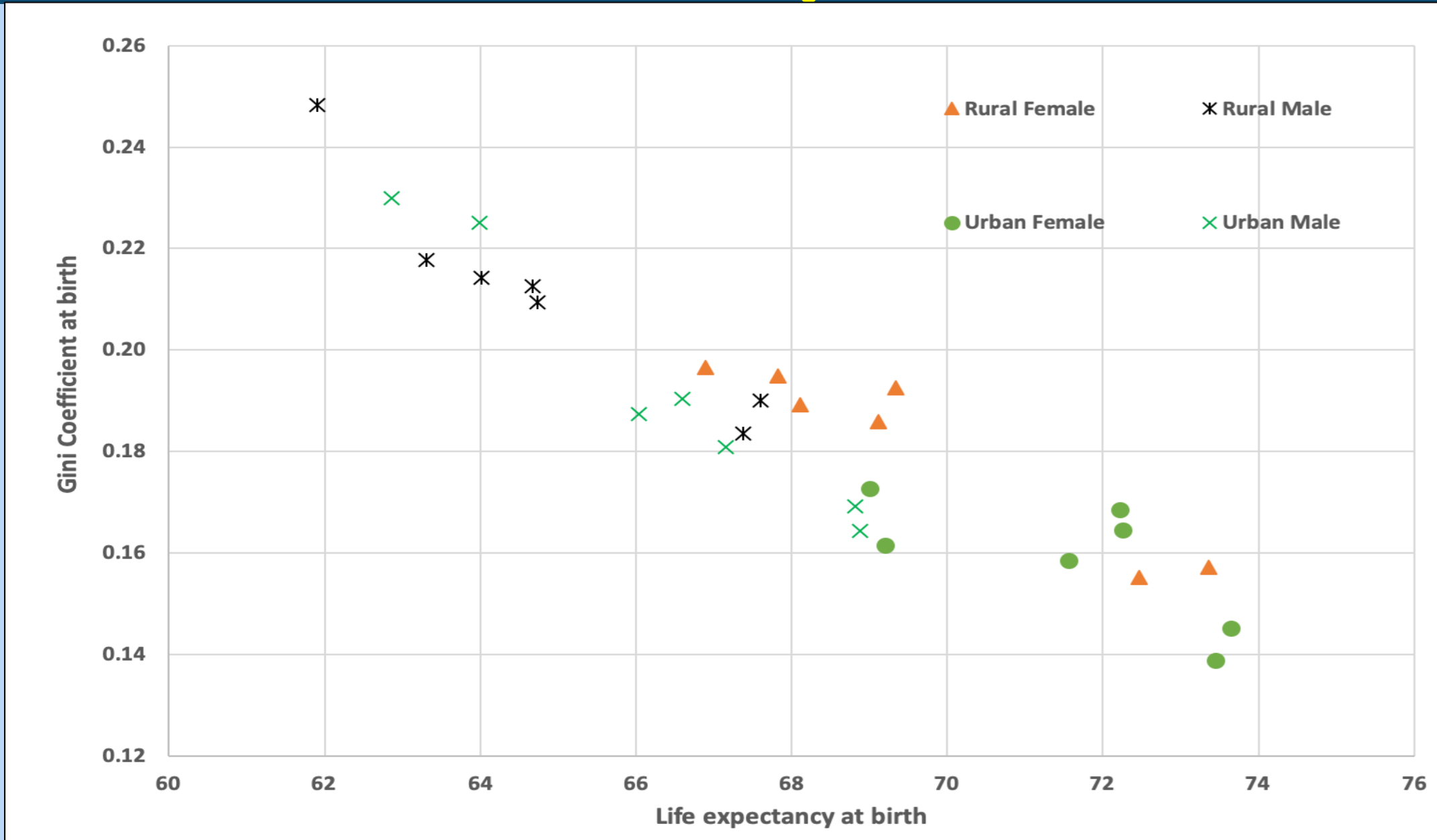### Figure 3: Age-specific contributions to rural-urban differential in e_0, regions of India, by sex

Figure 4: Month-wise contributions to rural-urban differential in e_0, India, by sex

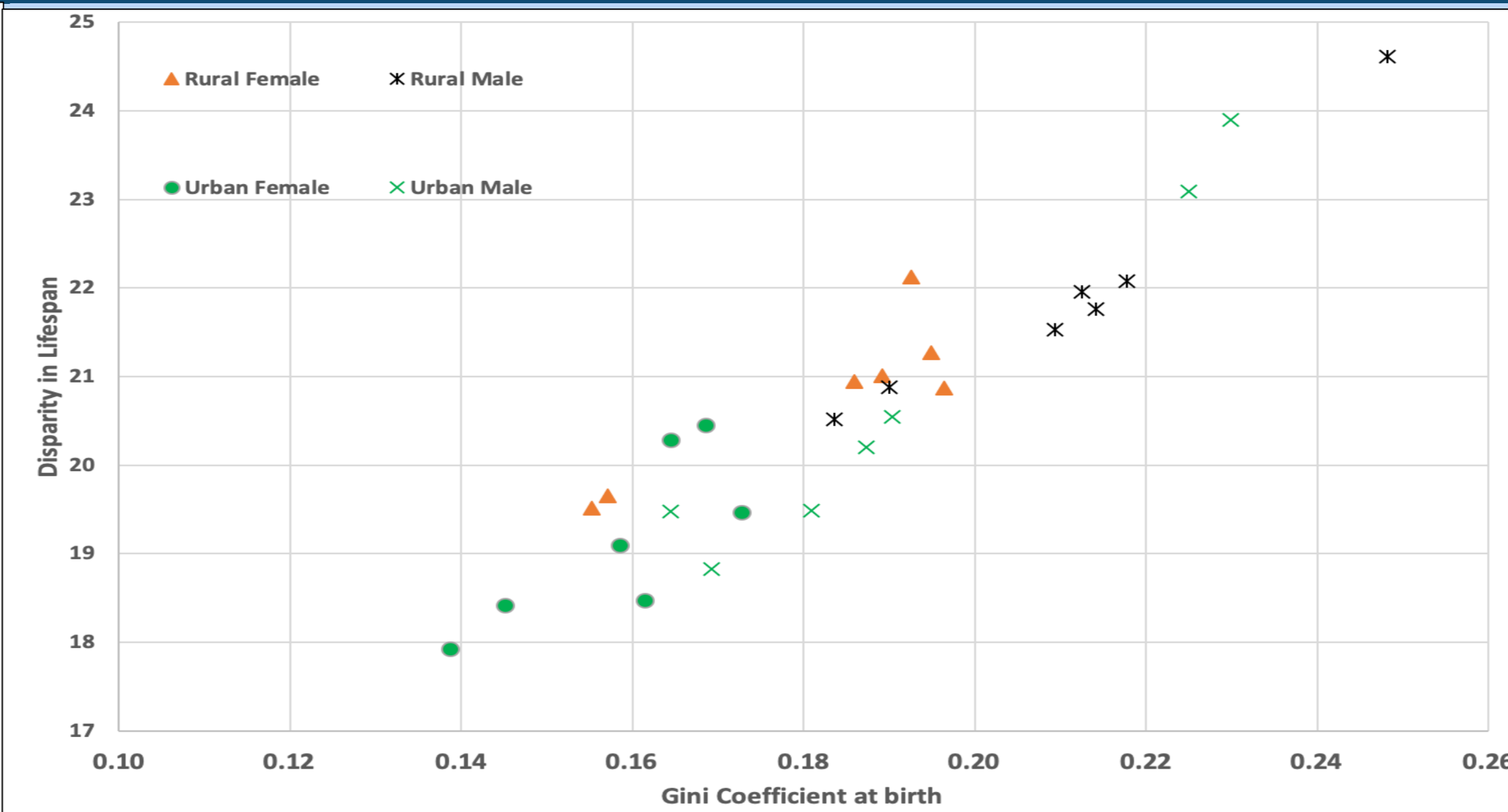### Figure 5: Month-wise contributions to rural-urban differential in e_0, regions of India, by sex

Figure 6: Age-specific contributions to sex differential in e0, regions of India, by residence
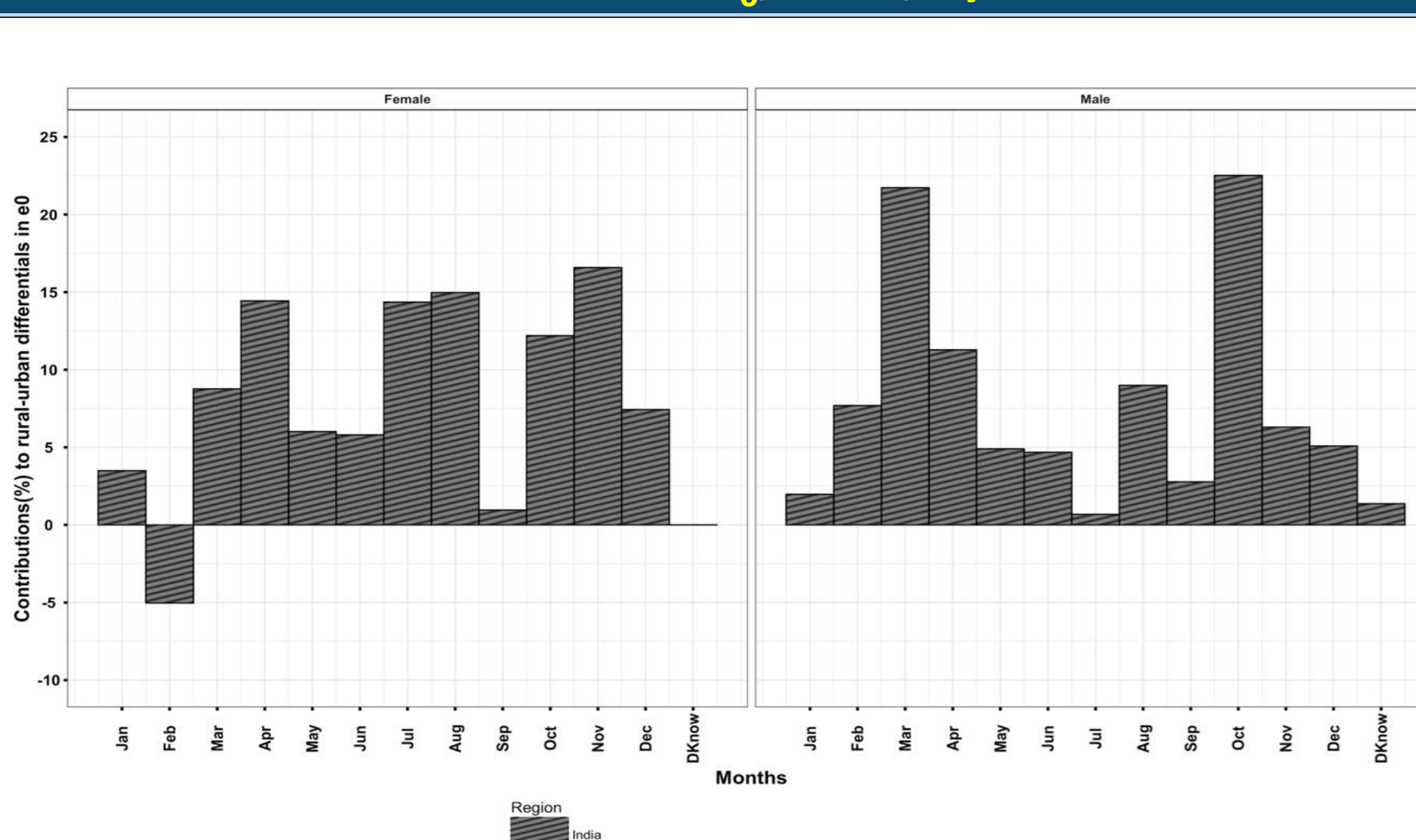
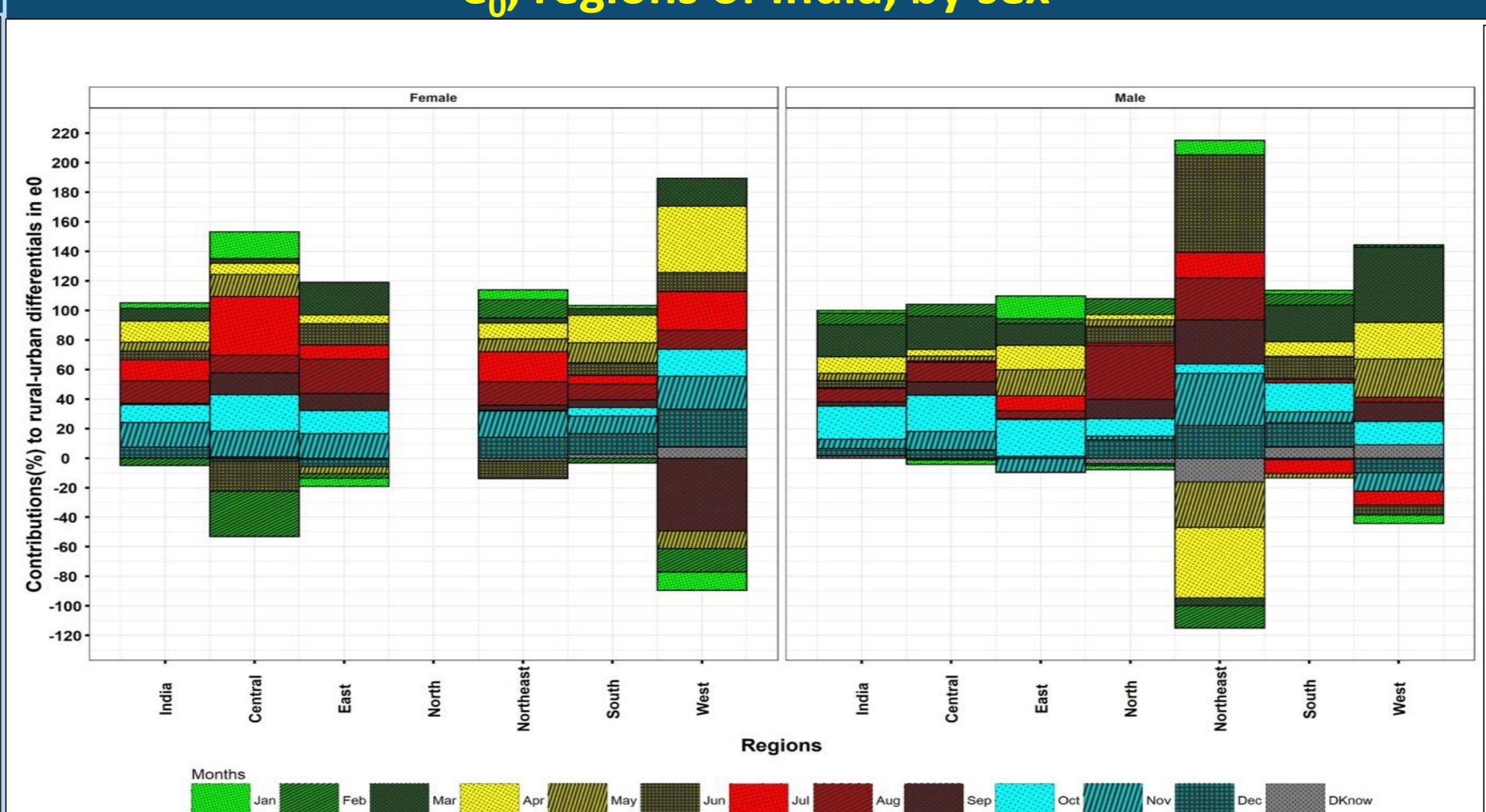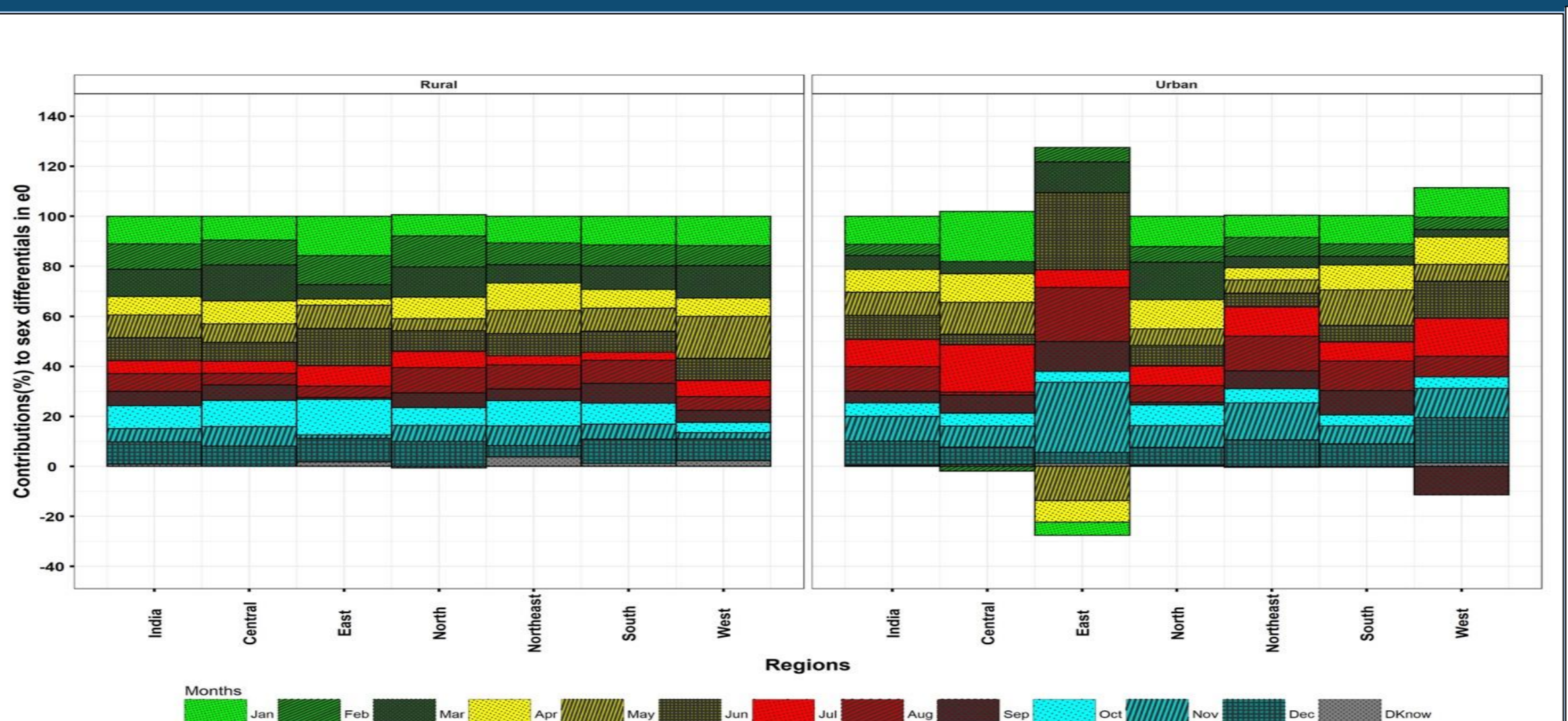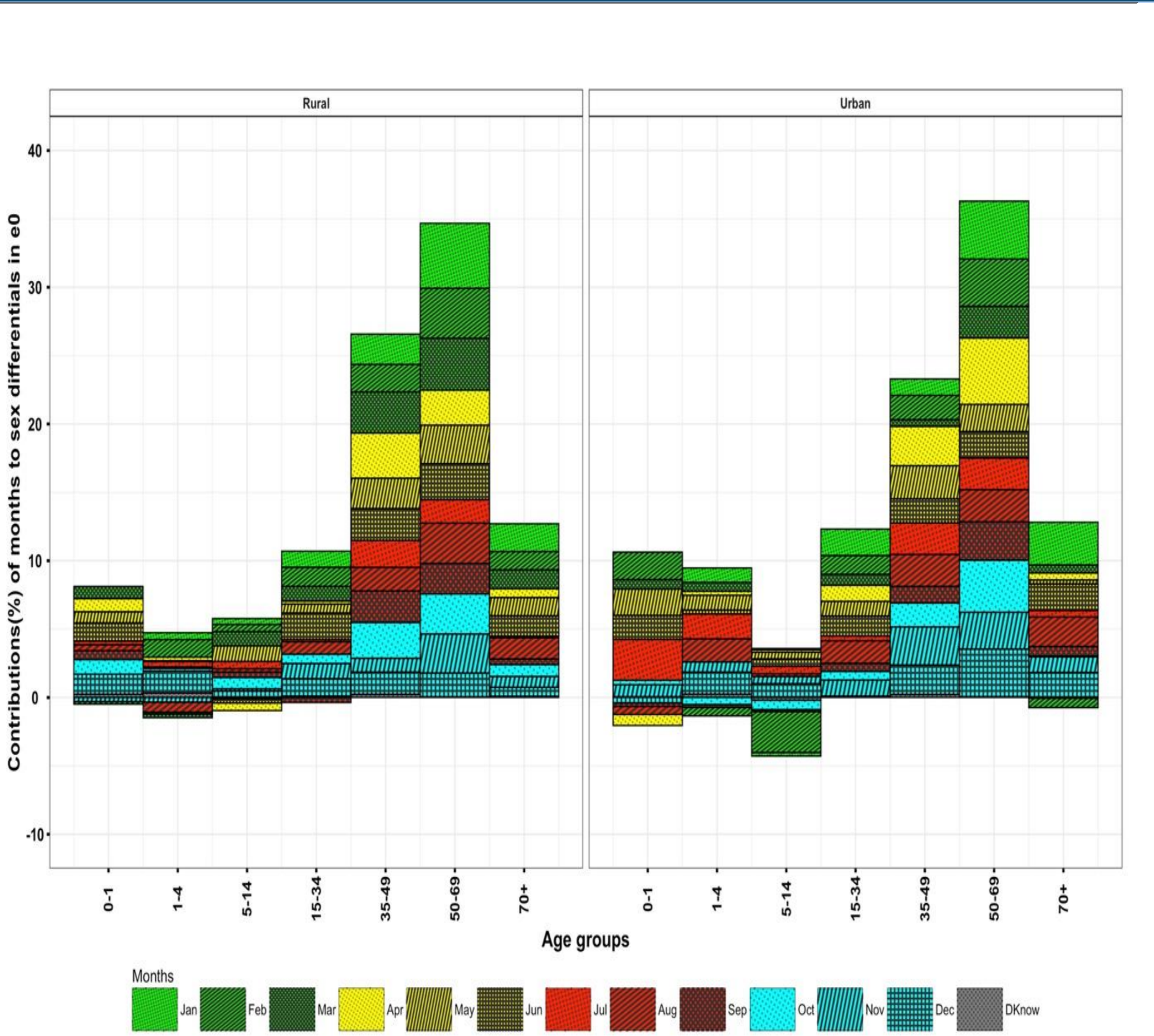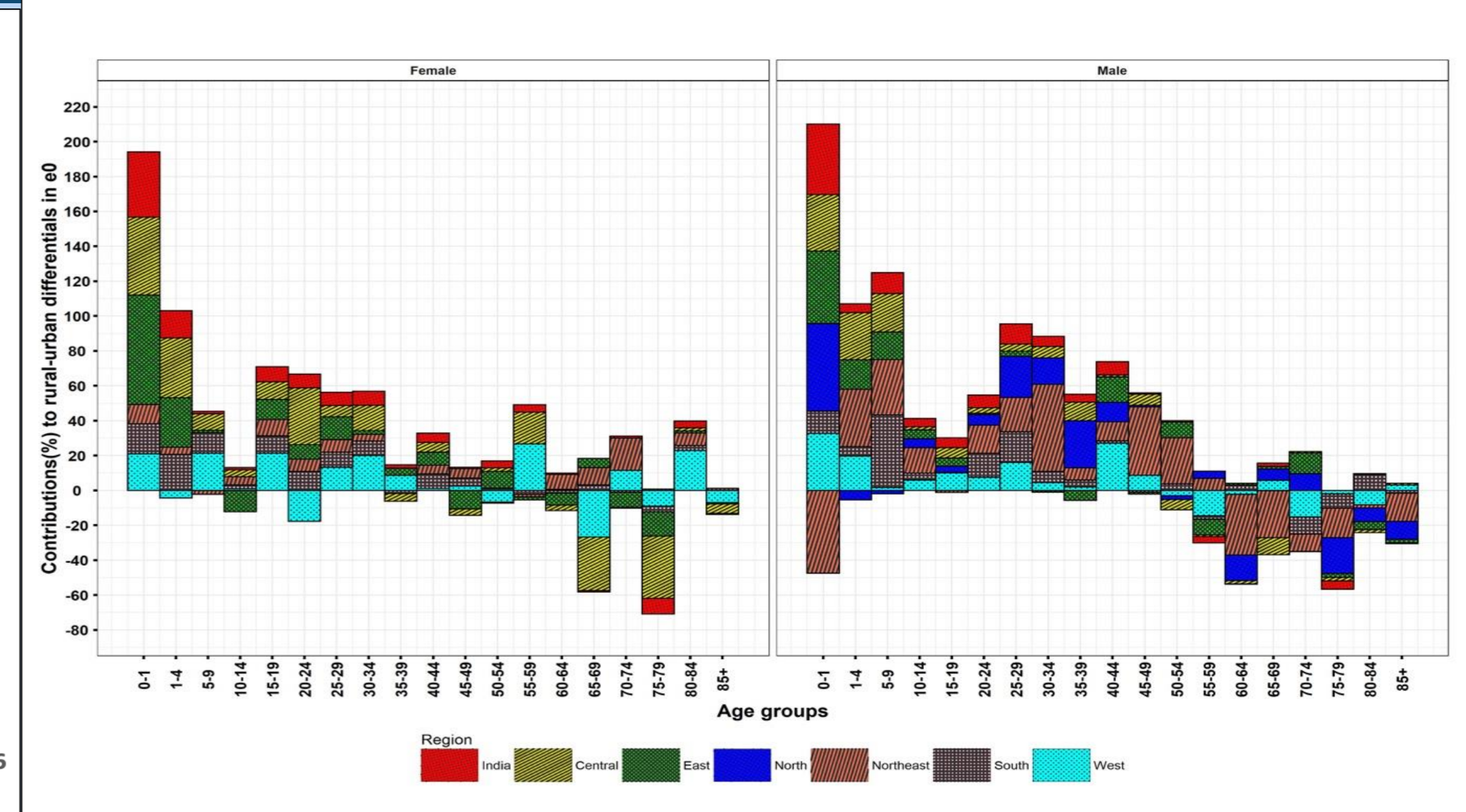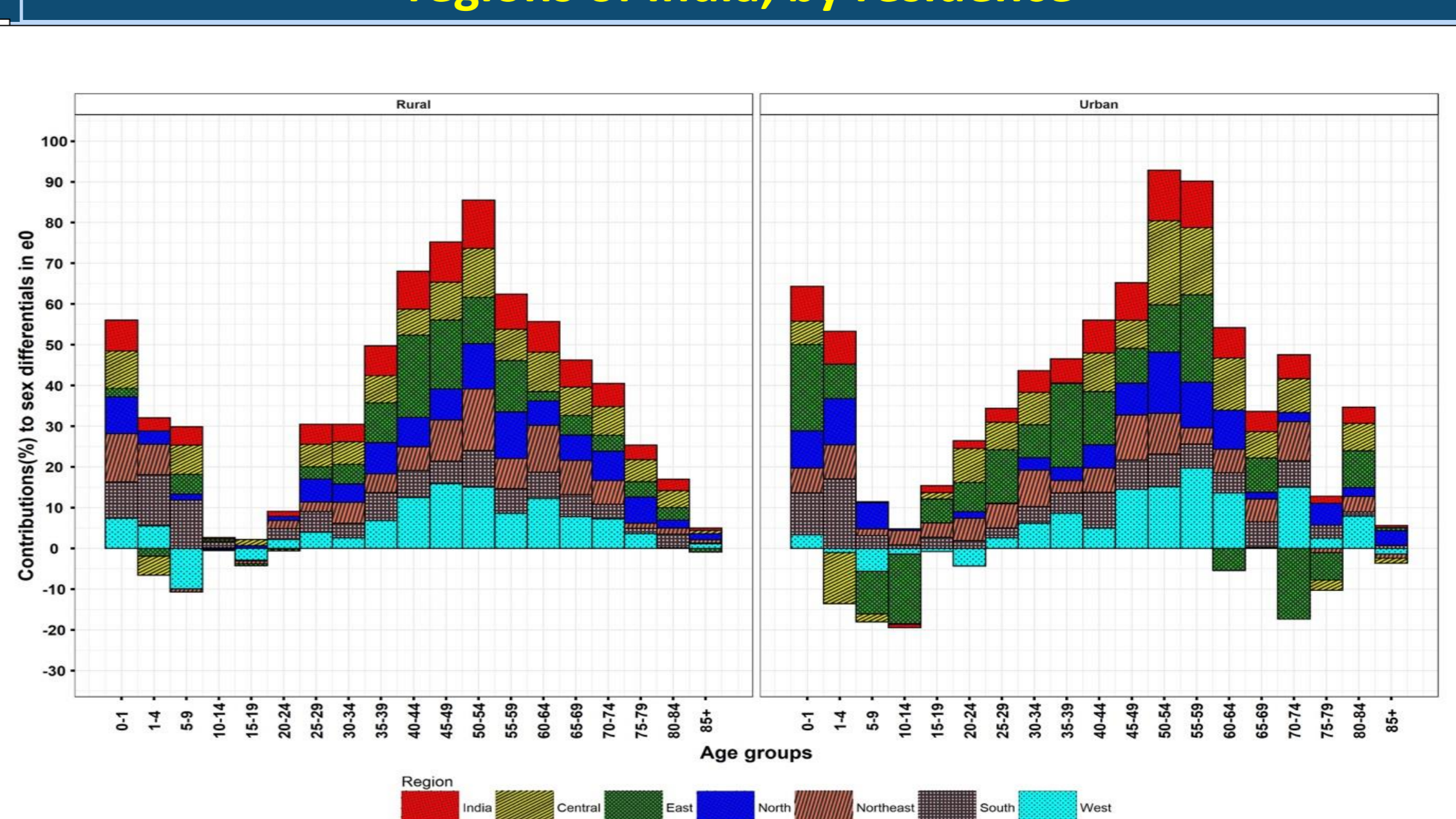### Figure 7: Month-wise contributions to sex-differential to e_0, India, by residence

Figure 8: Month-wise contributions to sex differential in e_0, regions of India, by residence

Figure 9: Age-month-specific contributions to rural-urban differential in e_0, India

Figure 10: Age-month-specific contributions to rural-urban differential in e_0, regions of India

Figure 11: Age-month-specific contributions to sex-differential in e_0, India
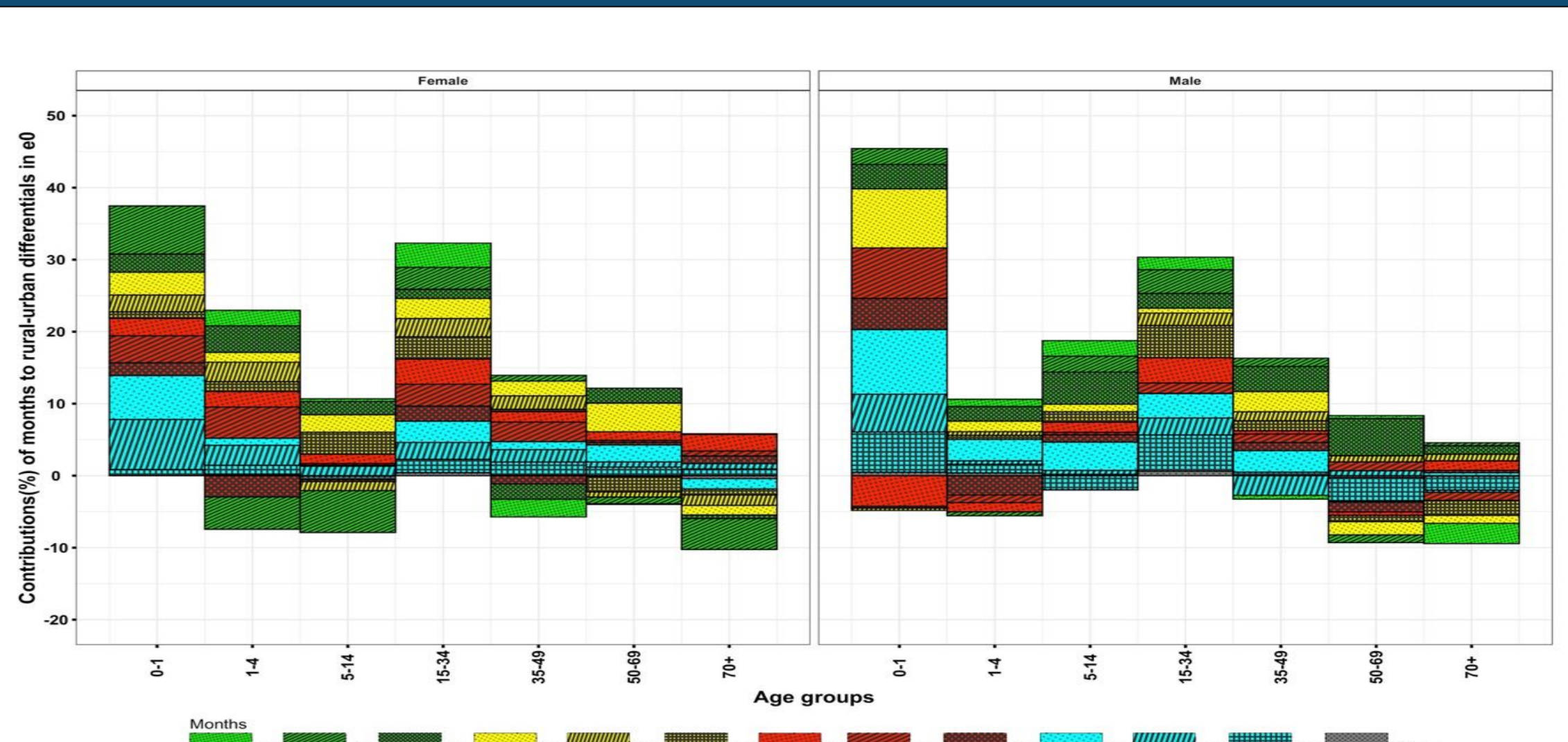

Figure 12: Age-month-specific contributions to sex differential in e_0, regions of India