

1 **Supplementary Note**

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3 **National and regional seasonal dynamics of all-cause and cause-specific mortality in the**
4 **USA from 1980 to 2016**

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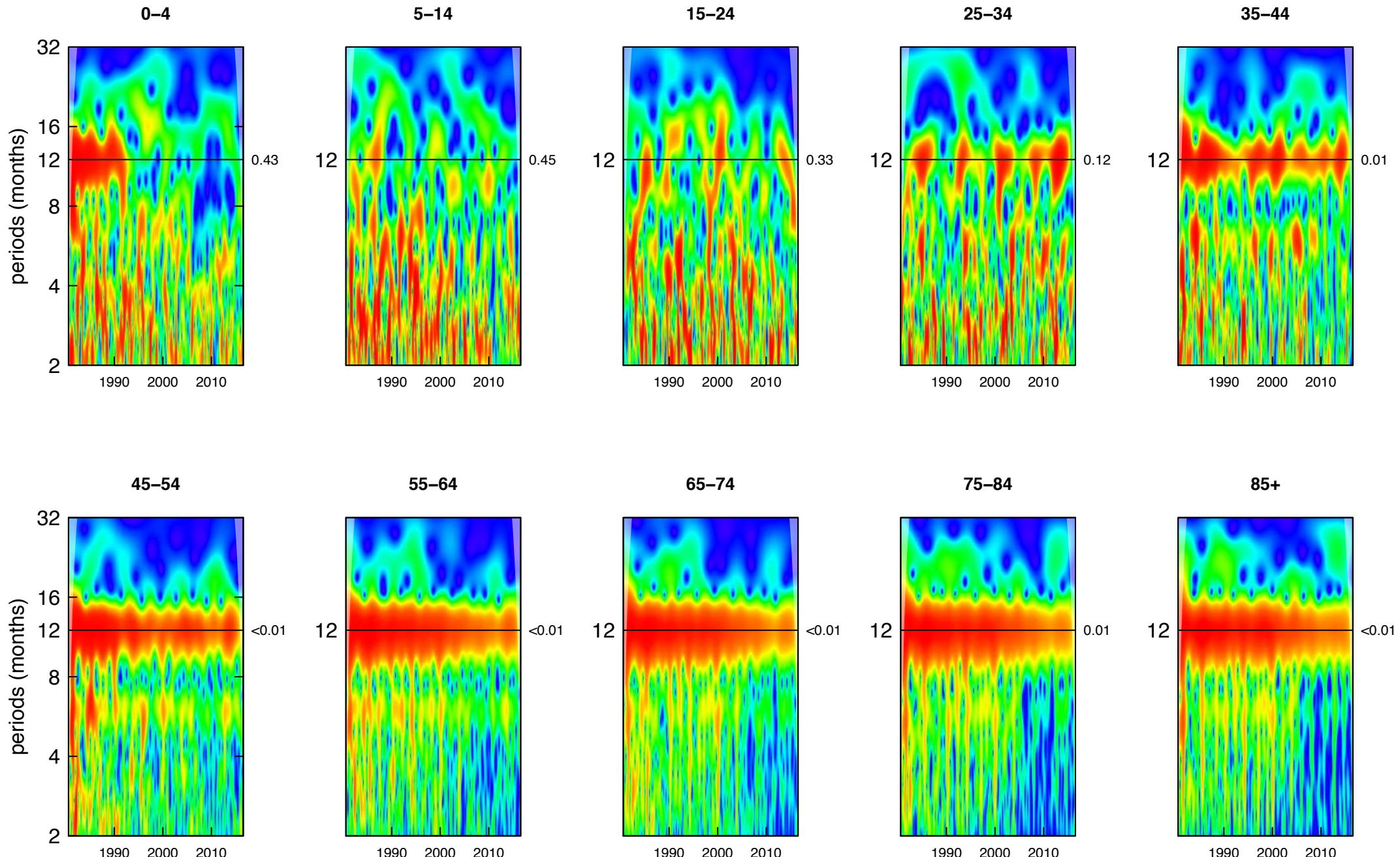
10 ³ WHO Collaborating Centre on NCD Surveillance and Epidemiology, Imperial College
11 London, London, United Kingdom, W2 1PG

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13 98121

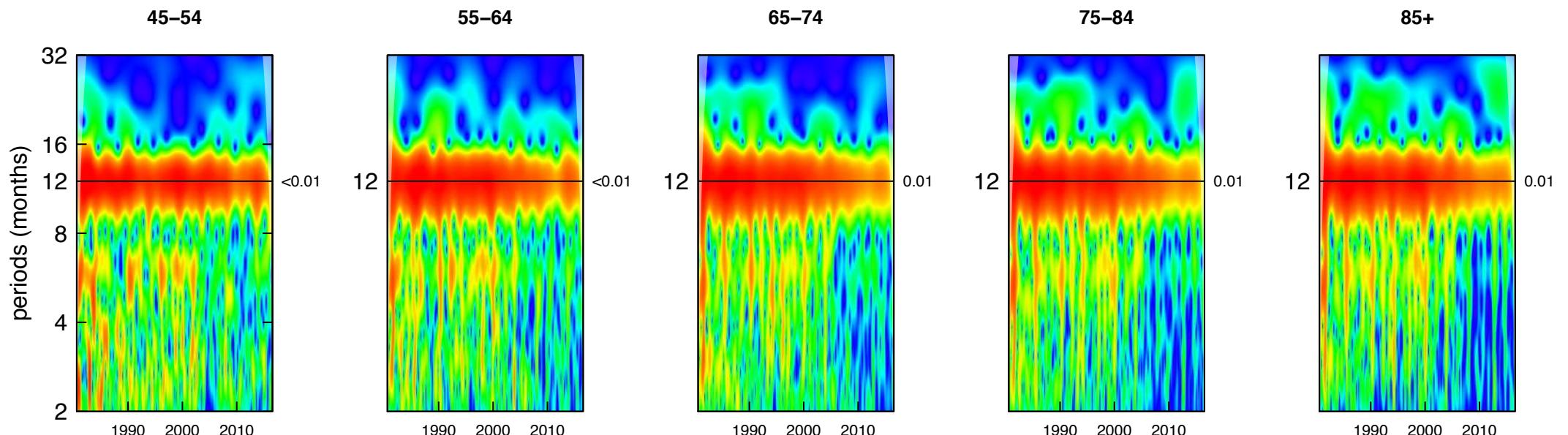
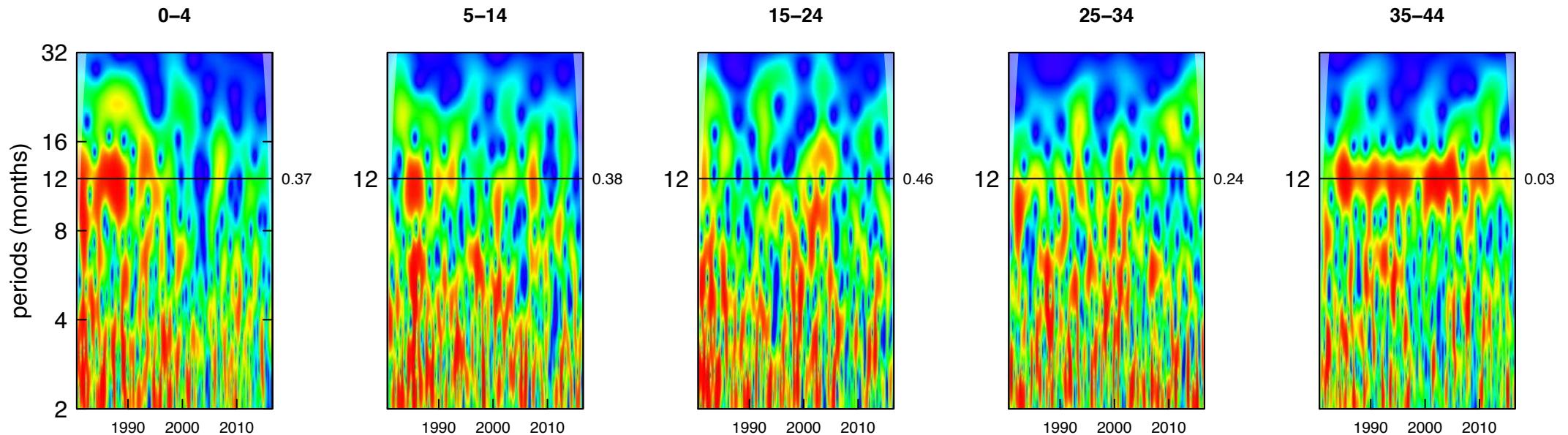
14 ⁵ Space and Atmospheric Physics, Imperial College London, London, United Kingdom, W7
15 2AZ

16 **Supplementary Figure 1:** Wavelet power spectra for national time series of additional cause-
17 specific death rates for 1980-2016, by sex and age group for (A) males and (B) females.
18 Wavelet power values increase from blue to red. The shaded regions at the left and right edge
19 of each box indicate the cone of influence, where spectral analysis is less robust. P-values for
20 the presence of 12-month seasonality are to the right of each figure at the 12-month line.

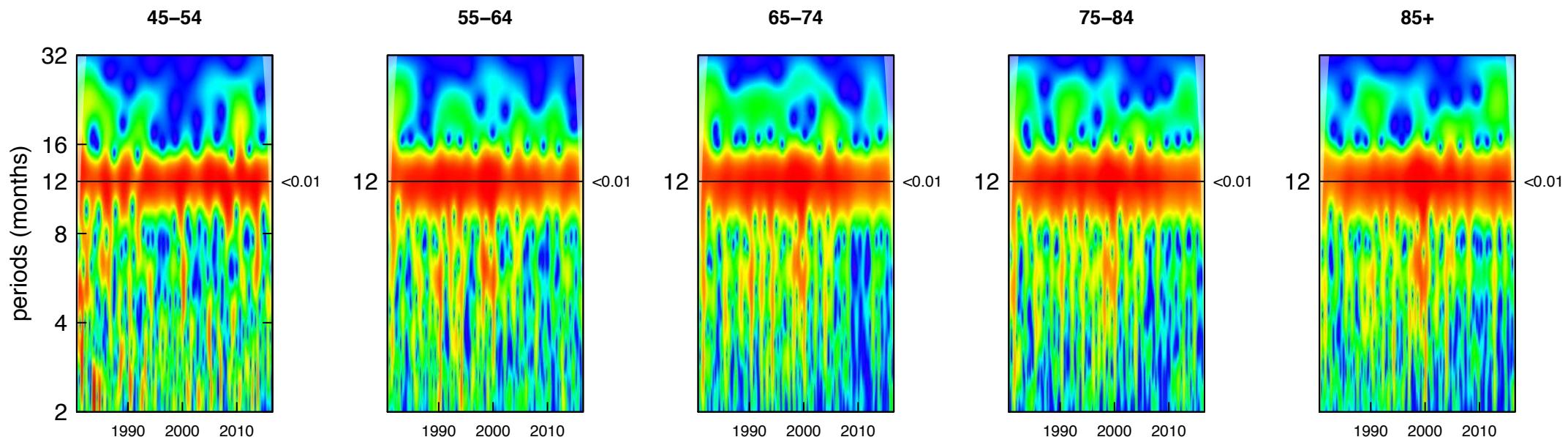
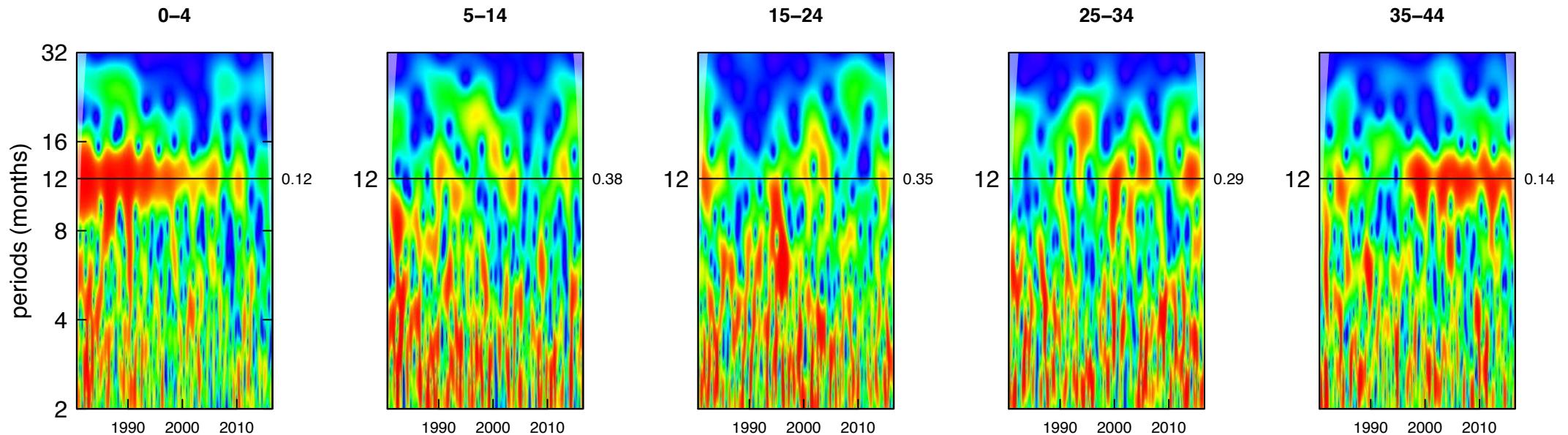
Male cardiovascular diseases



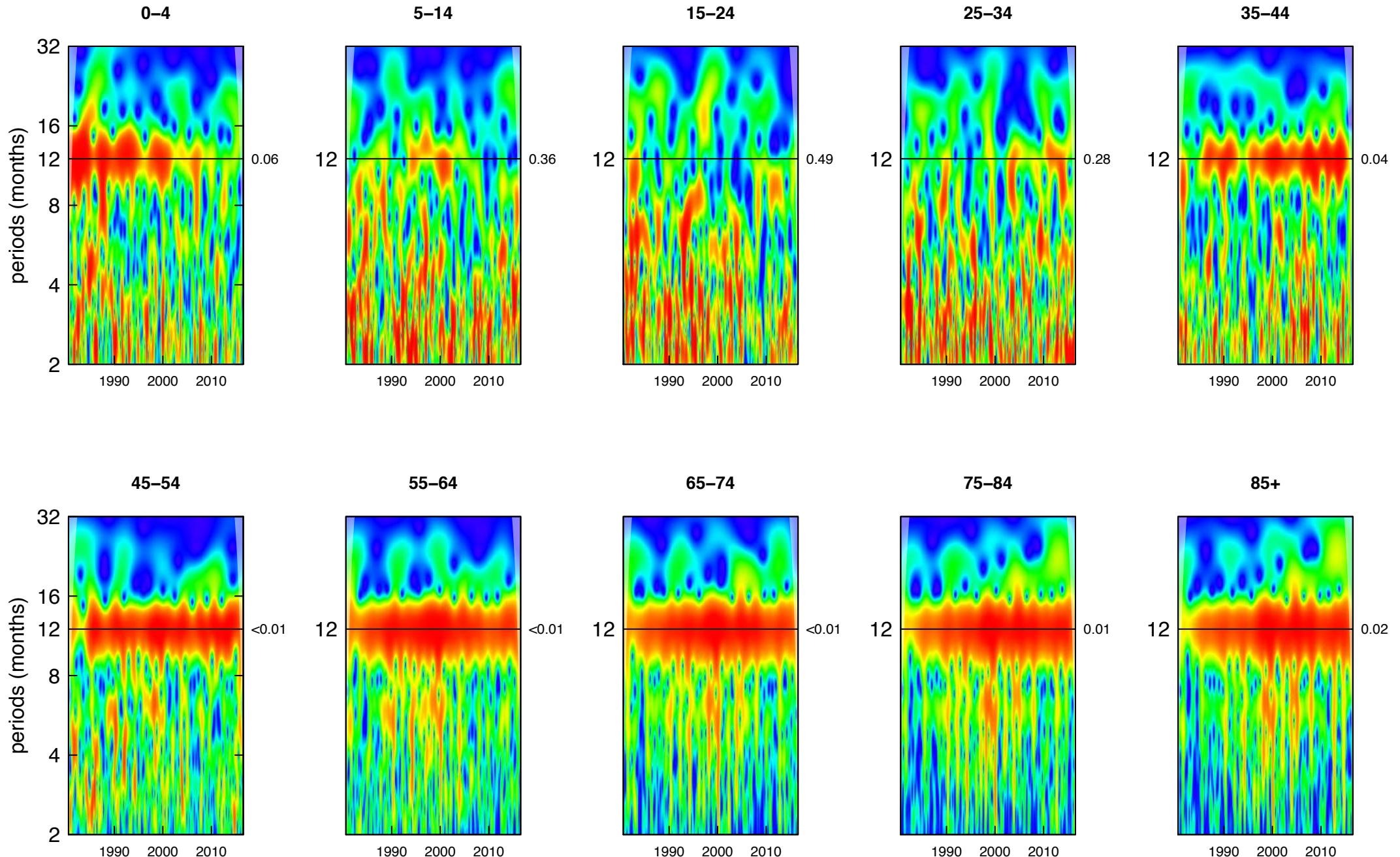
Female cardiovascular diseases



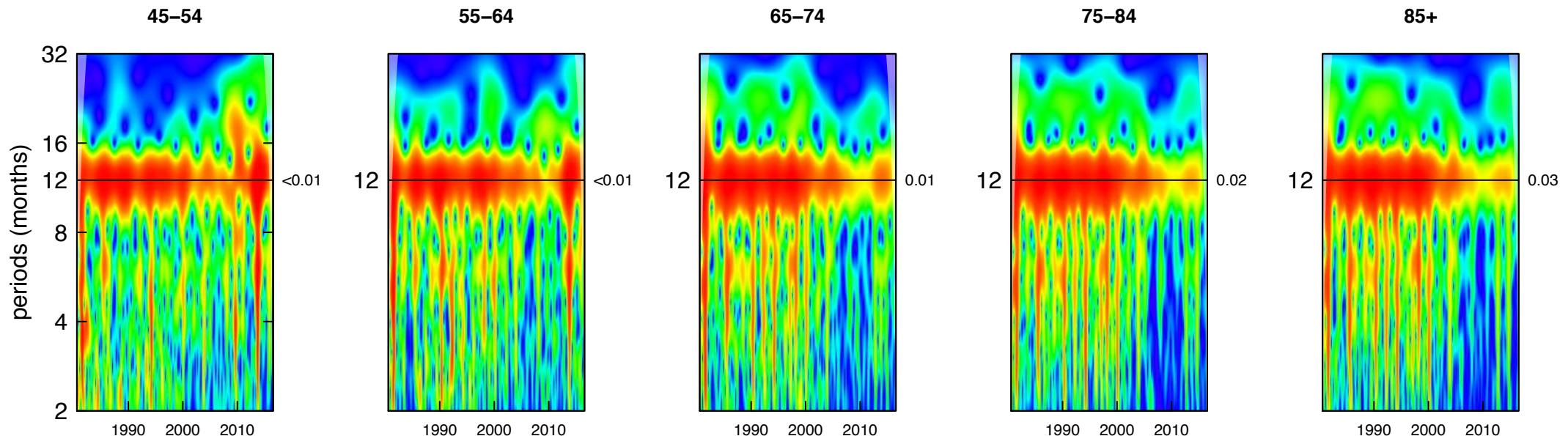
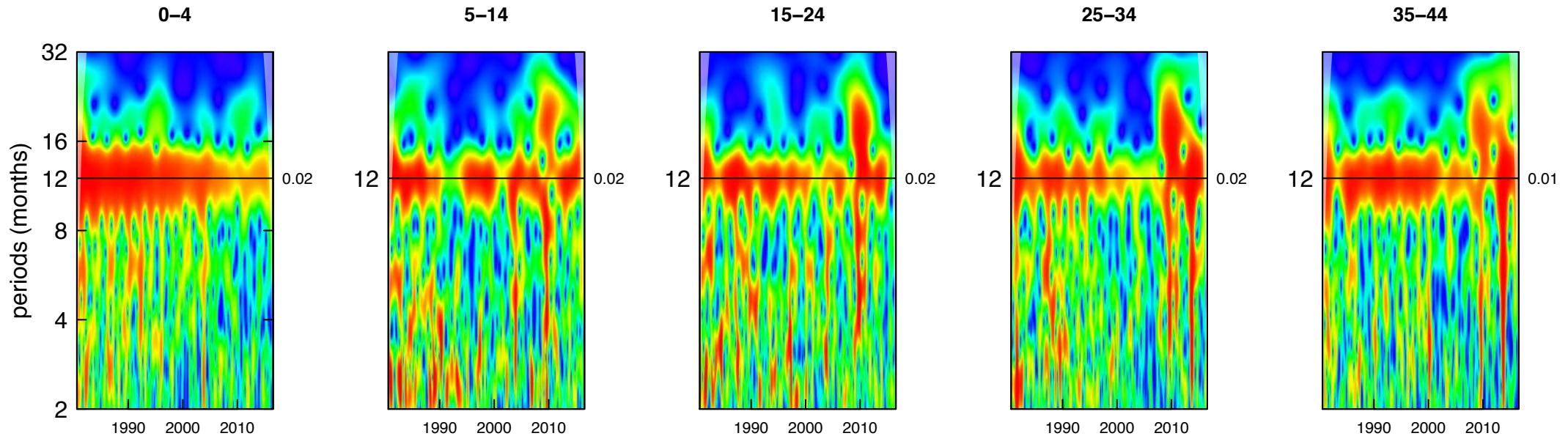
Male chronic respiratory diseases



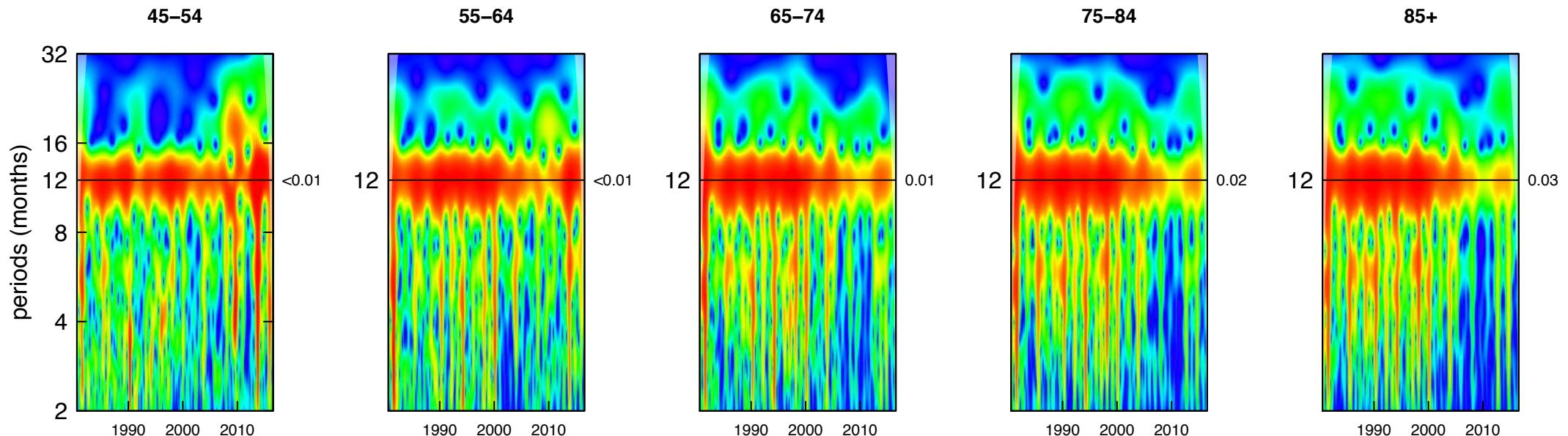
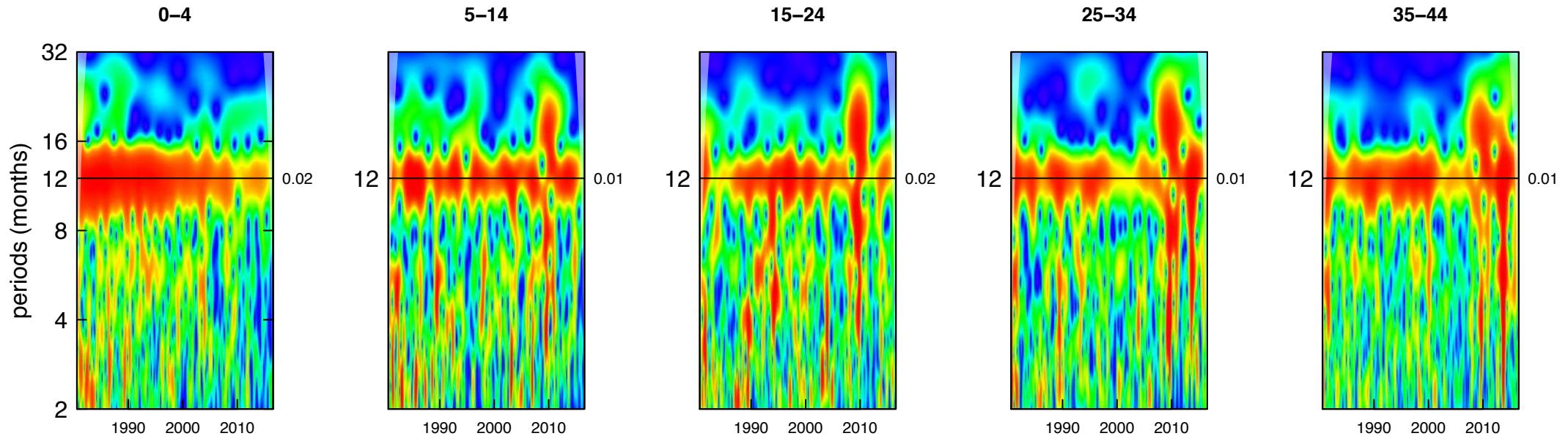
Female chronic respiratory diseases



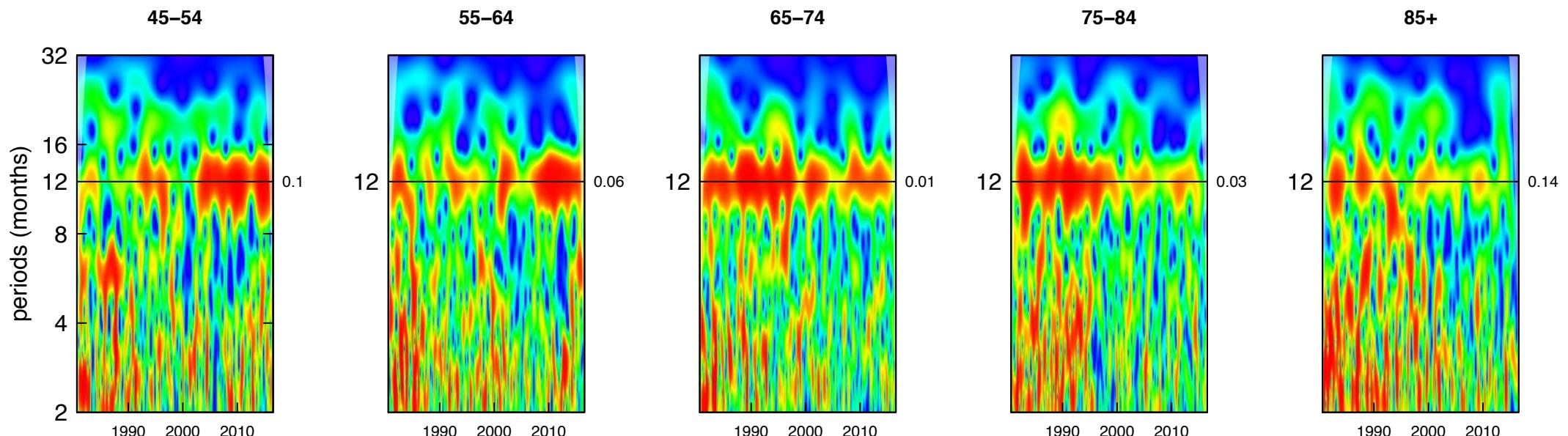
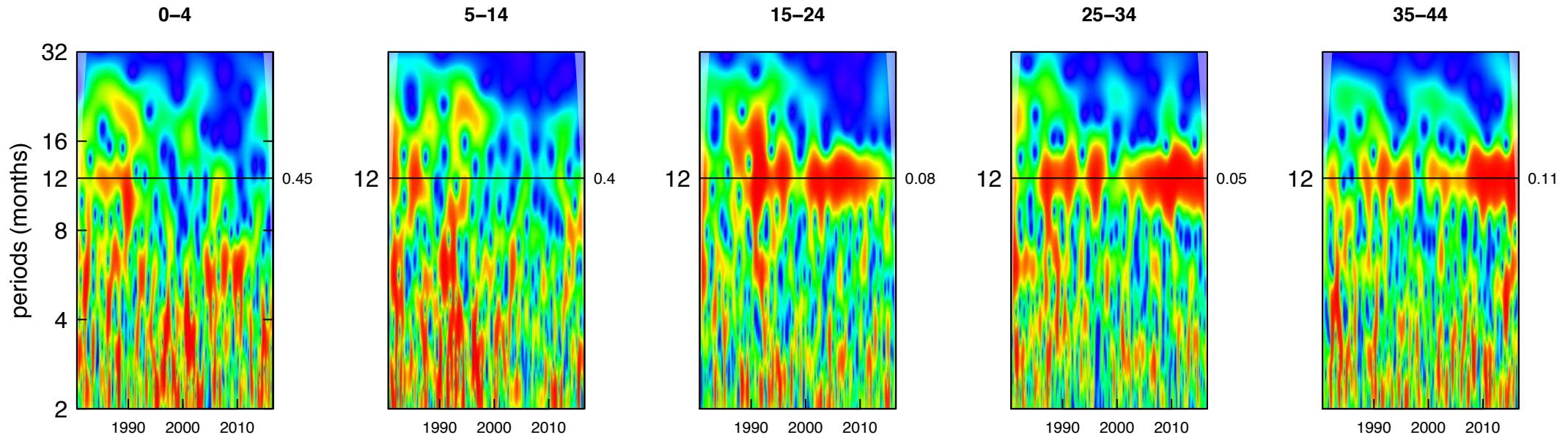
Male respiratory infections



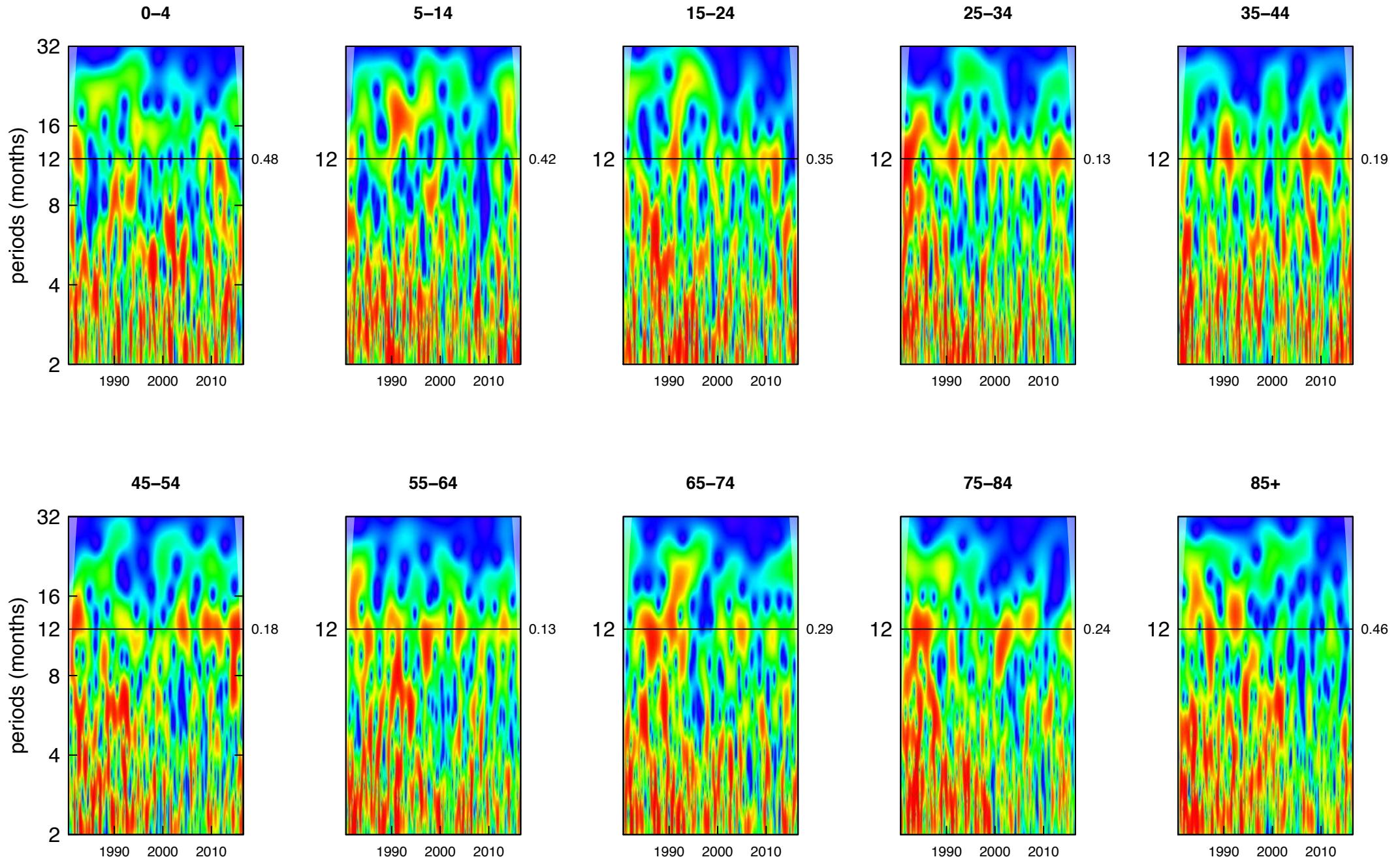
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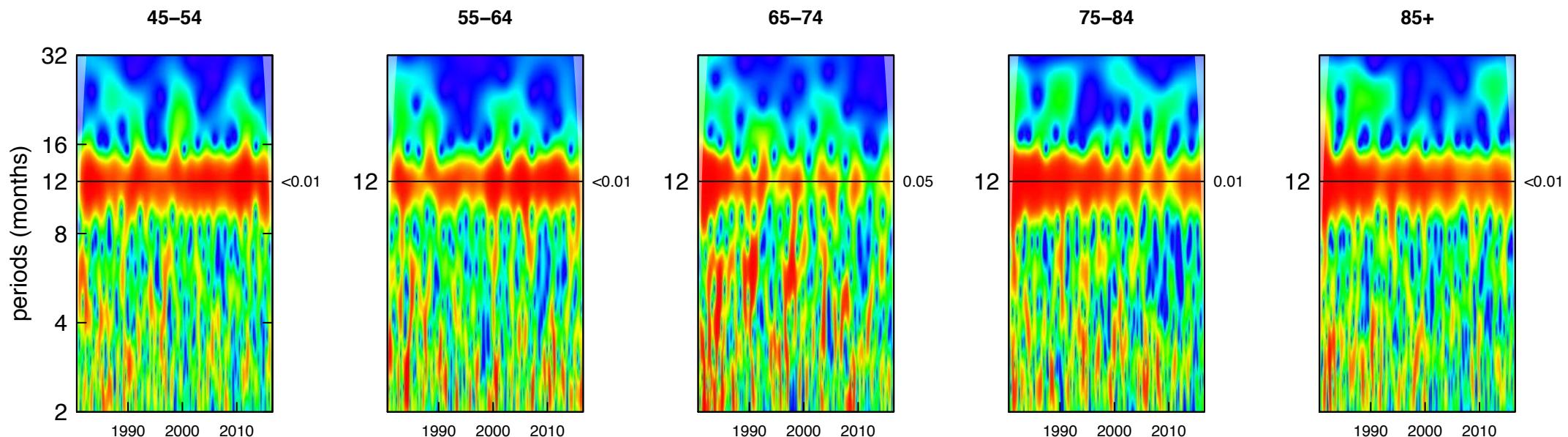
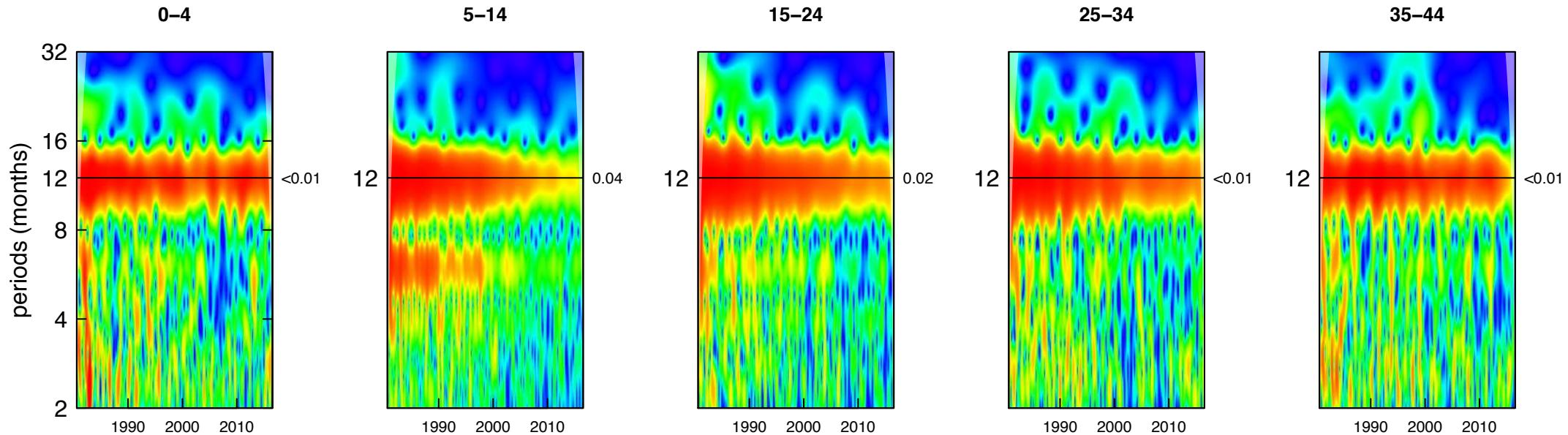
Male intentional injuries



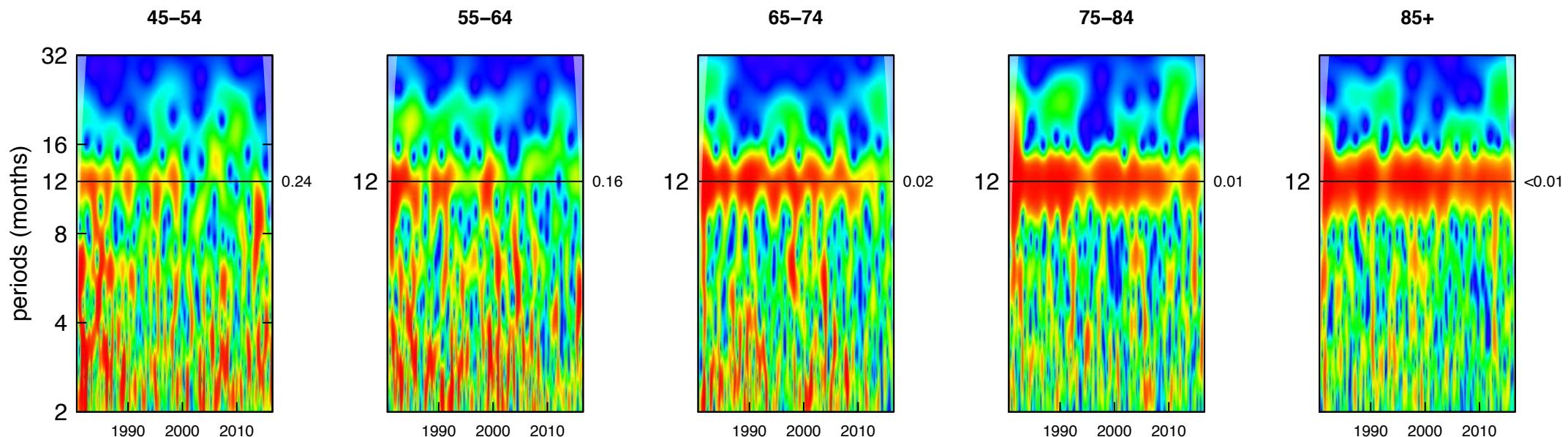
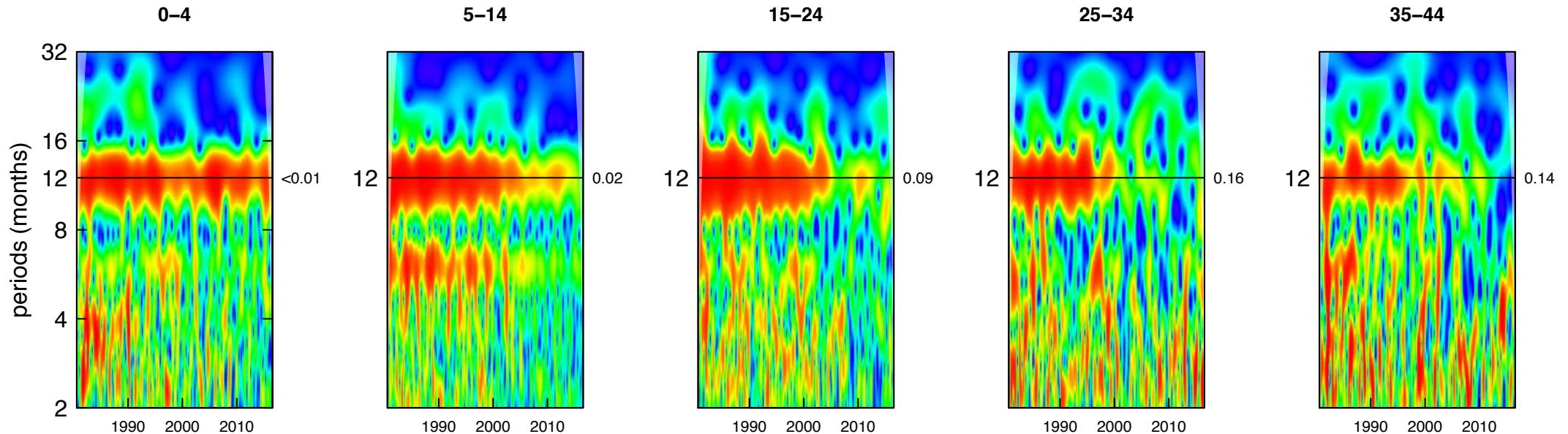
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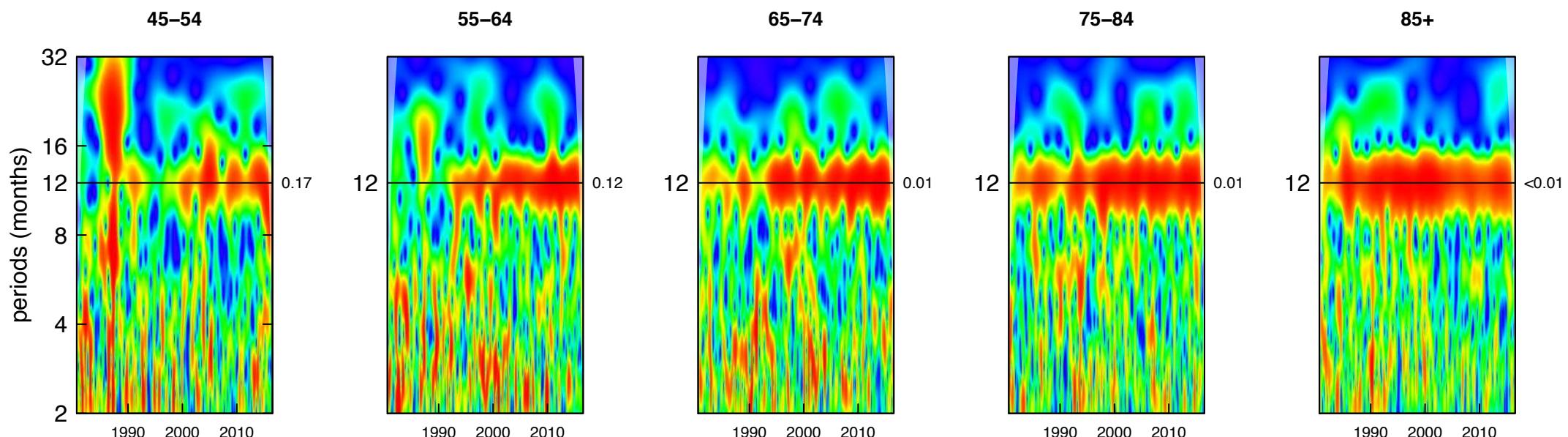
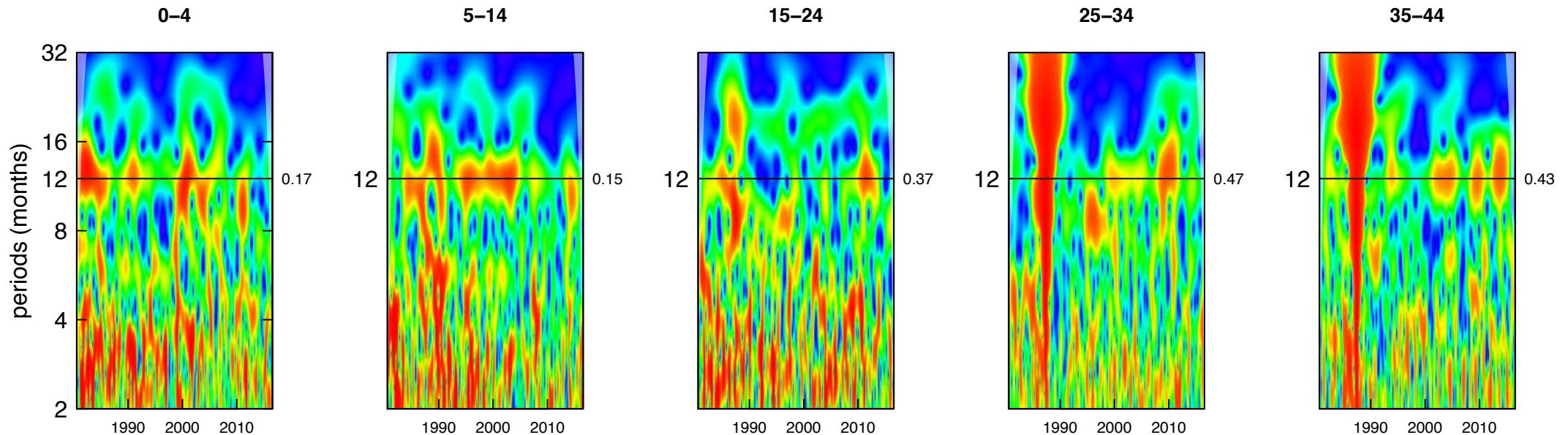
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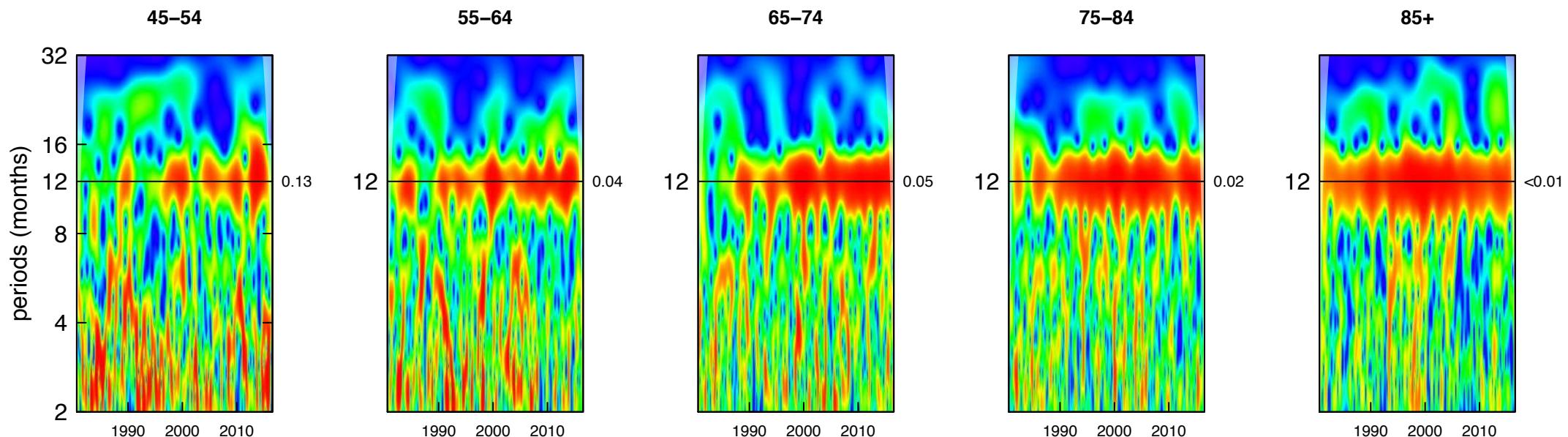
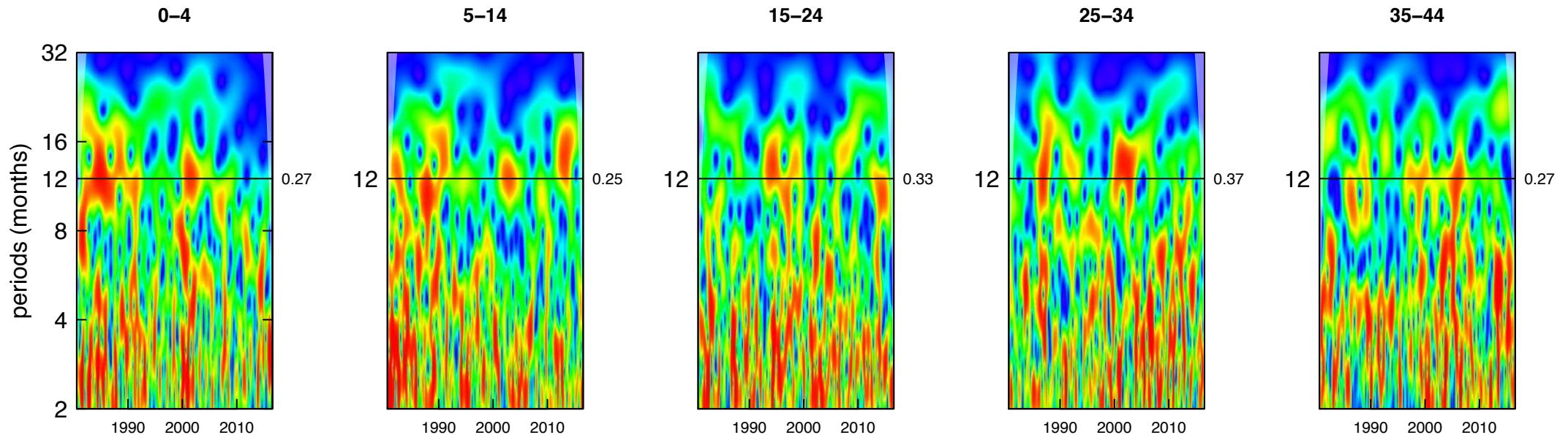
Female unintentional injuries



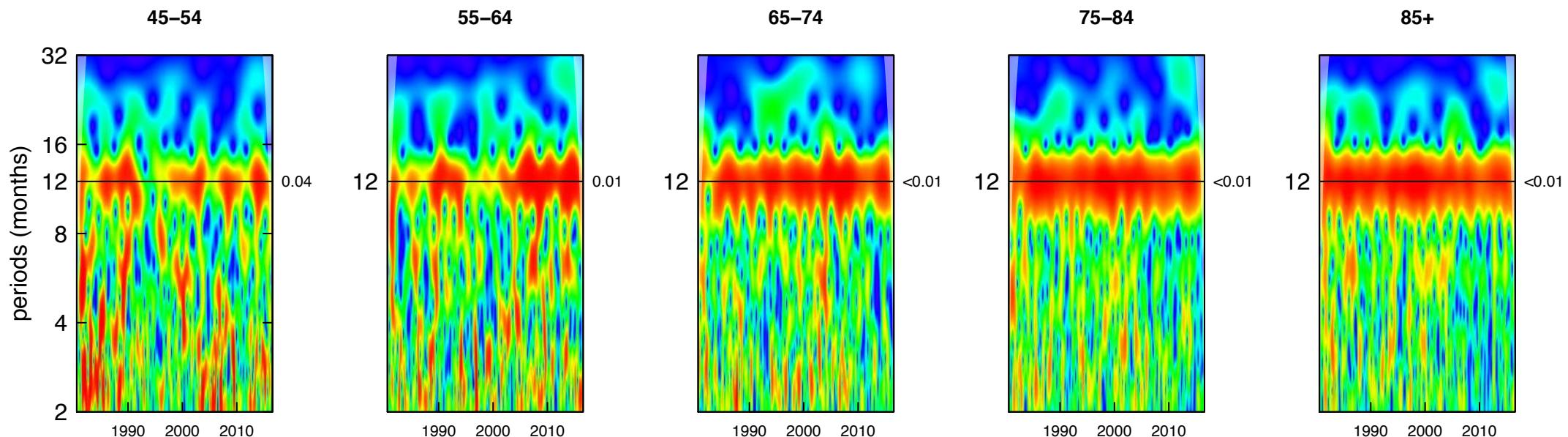
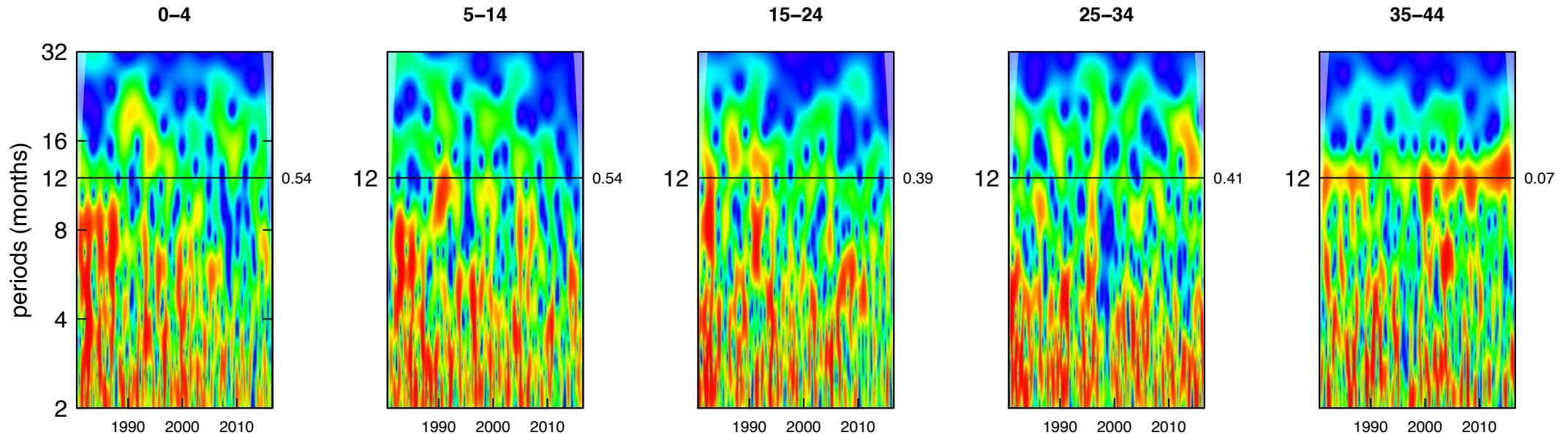
Male endocrine disorders



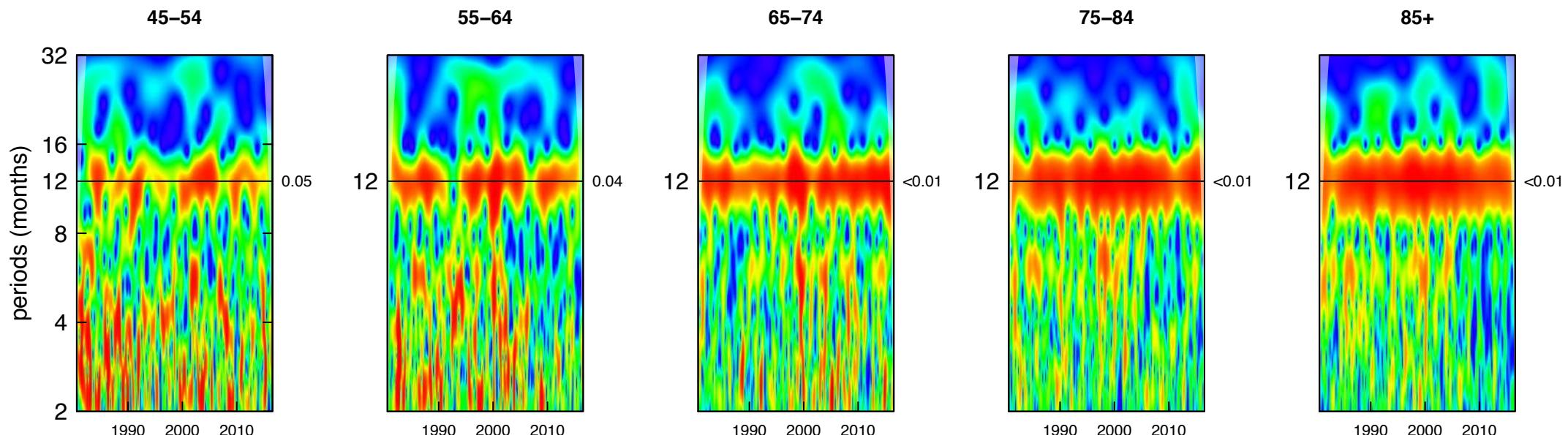
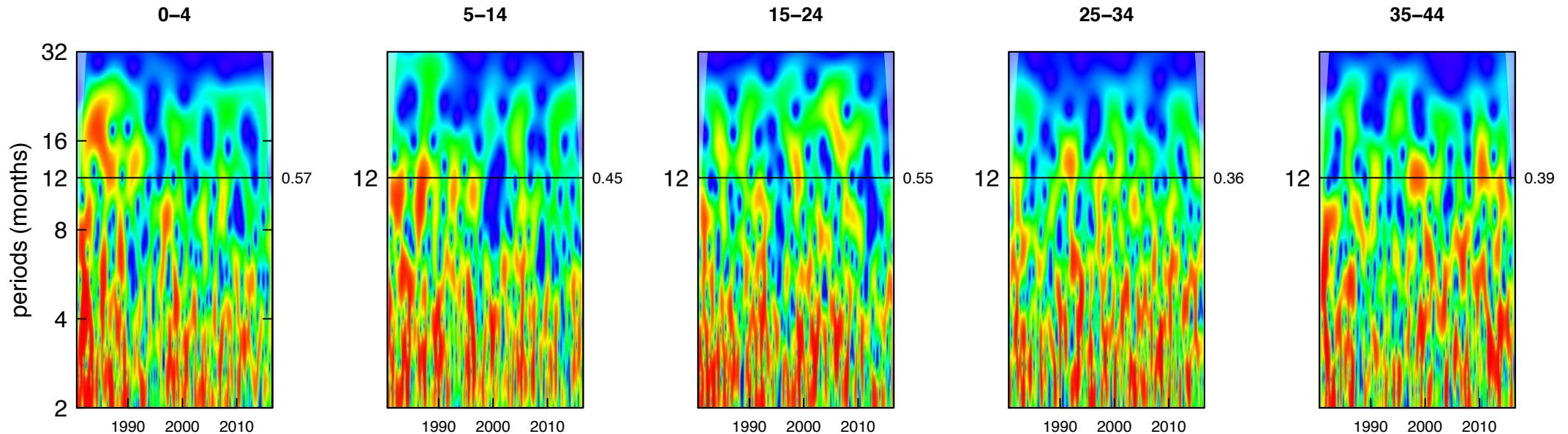
Female endocrine disorders



Male genitourinary diseases

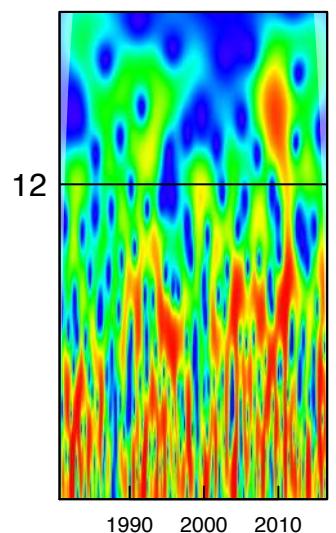


Female genitourinary diseases

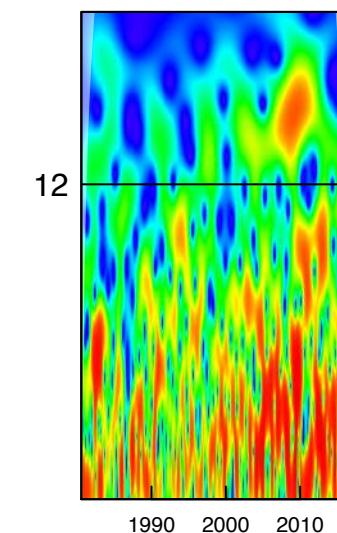


Female maternal conditions

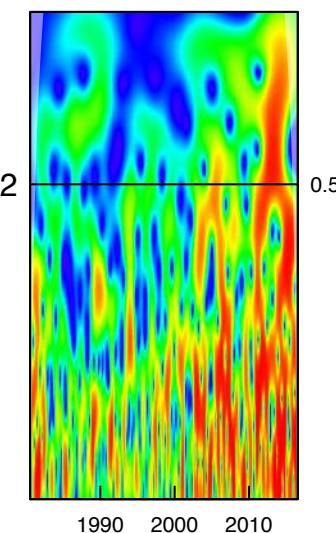
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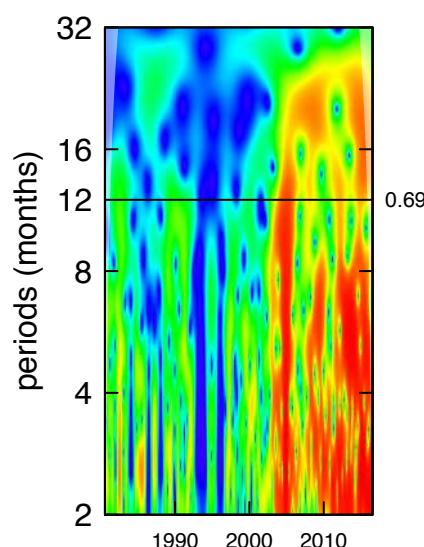
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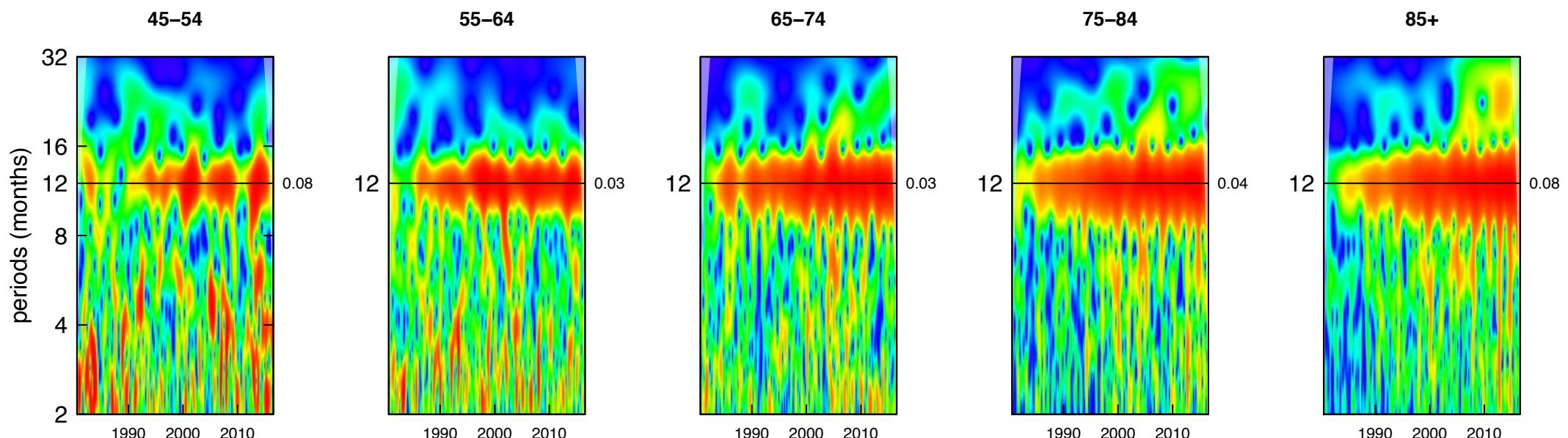
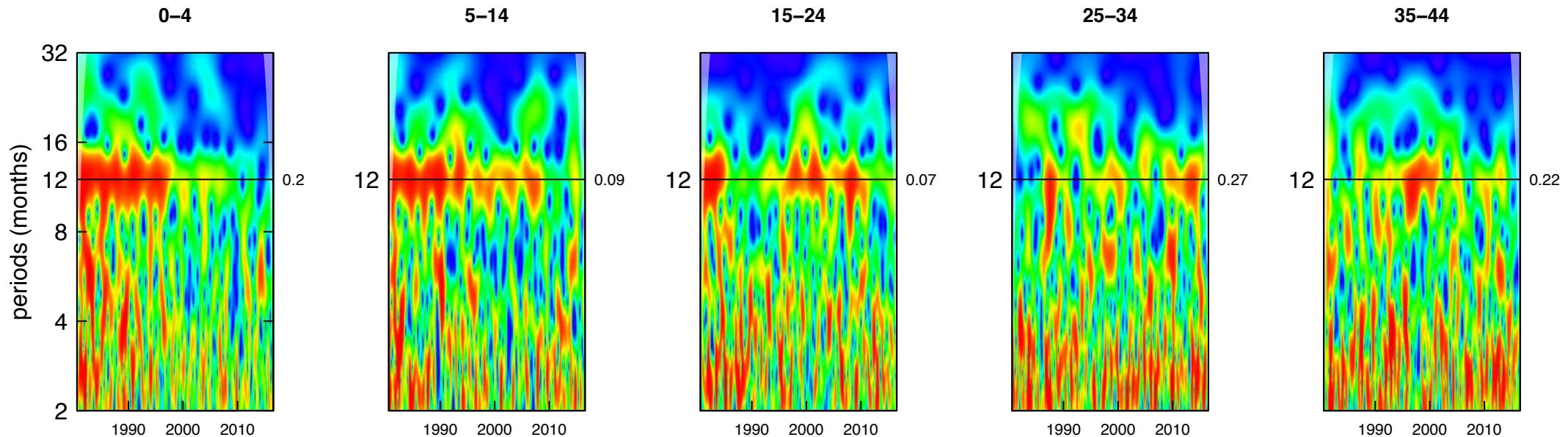
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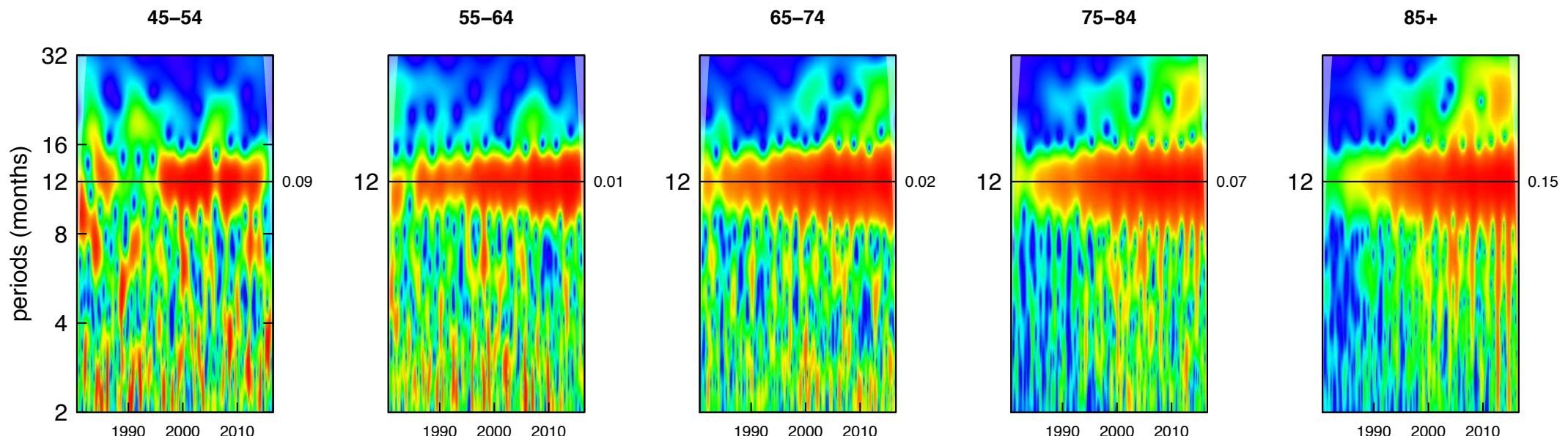
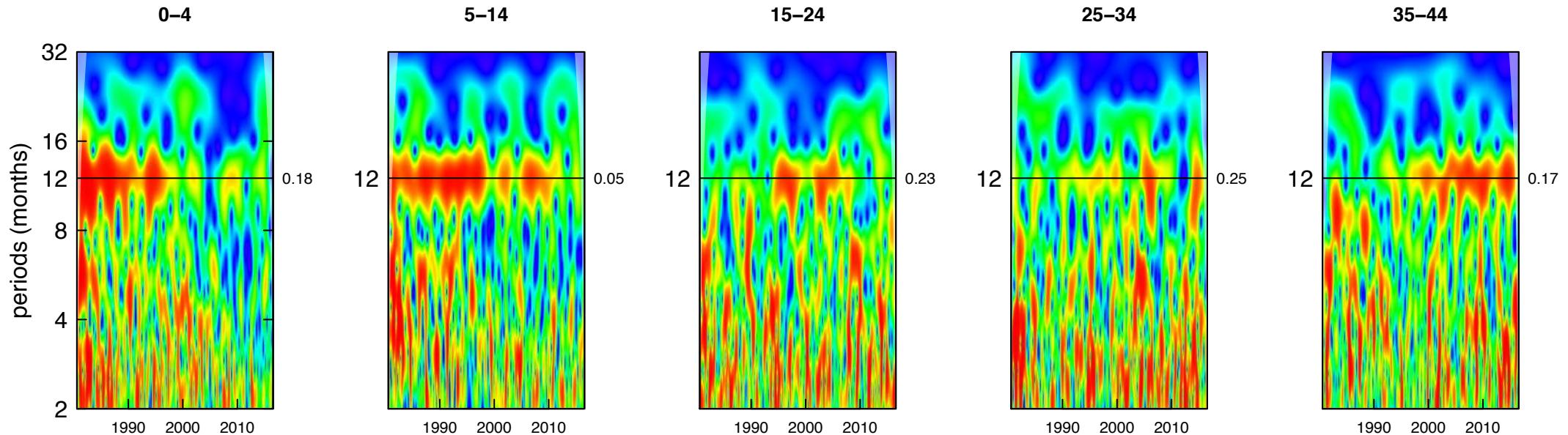
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Male neuropsychiatric disorders

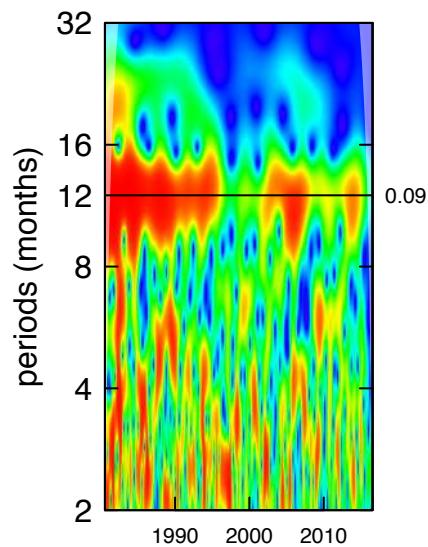


Female neuropsychiatric disorders



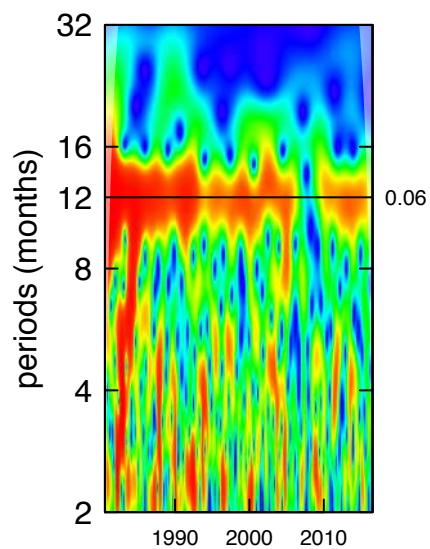
Male perinatal conditions

0–4

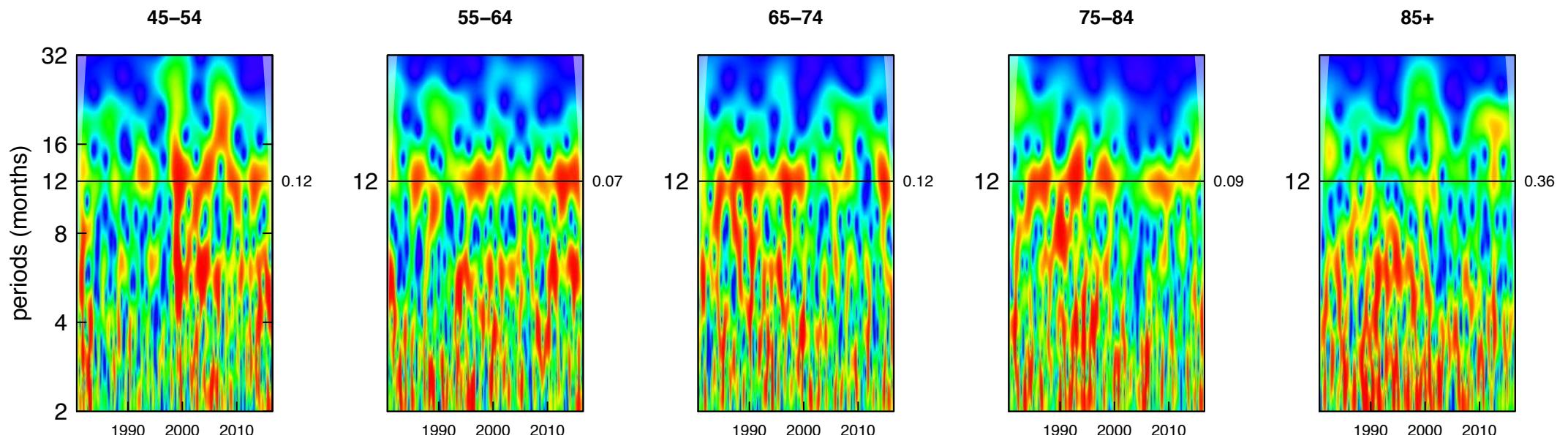
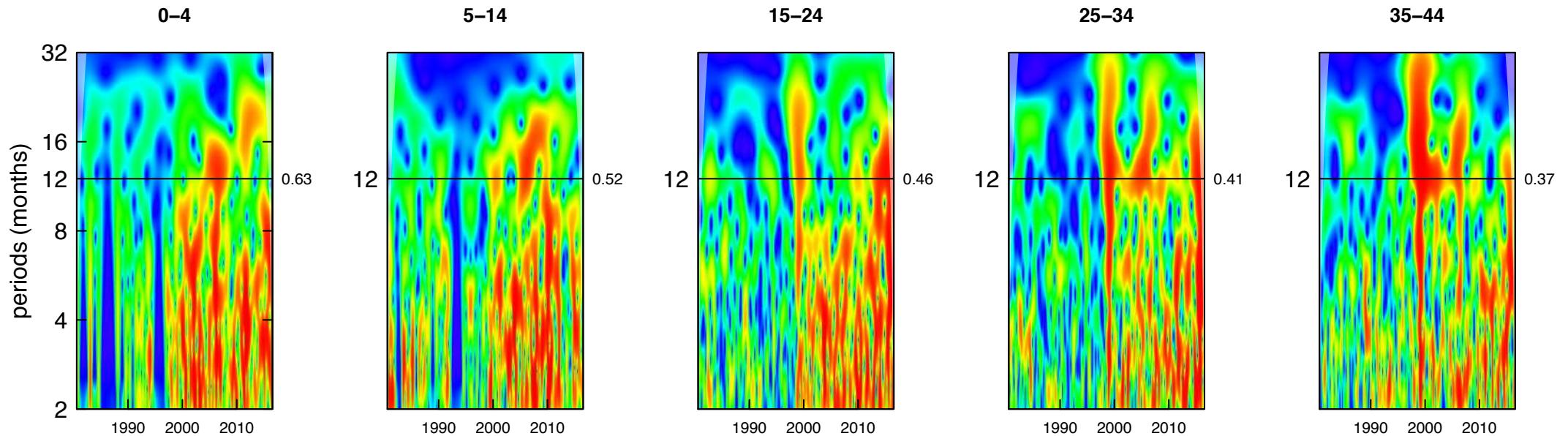


Female perinatal conditions

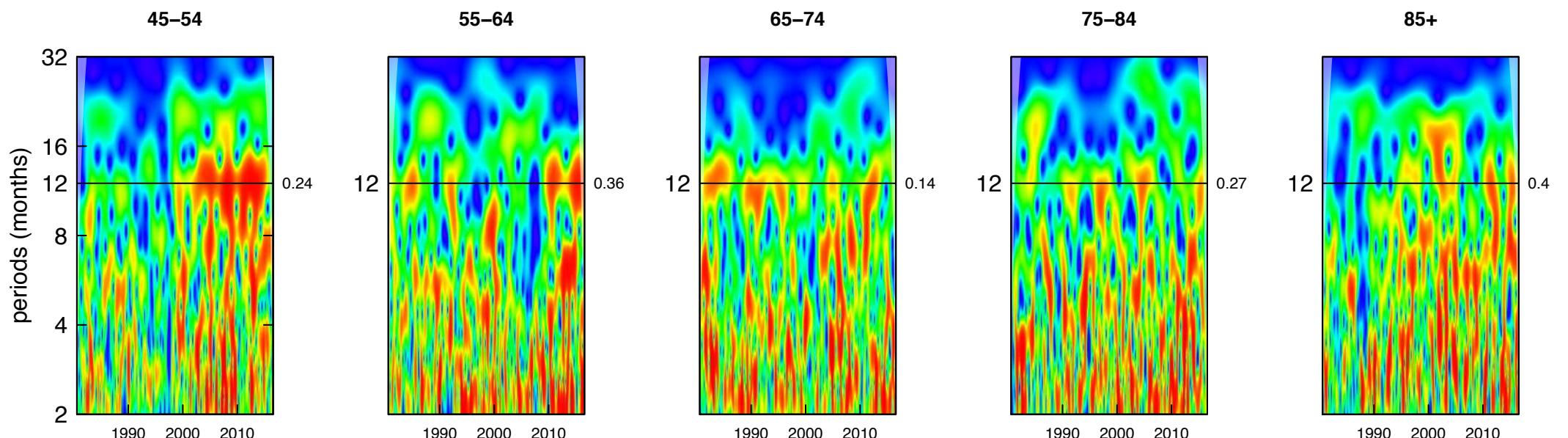
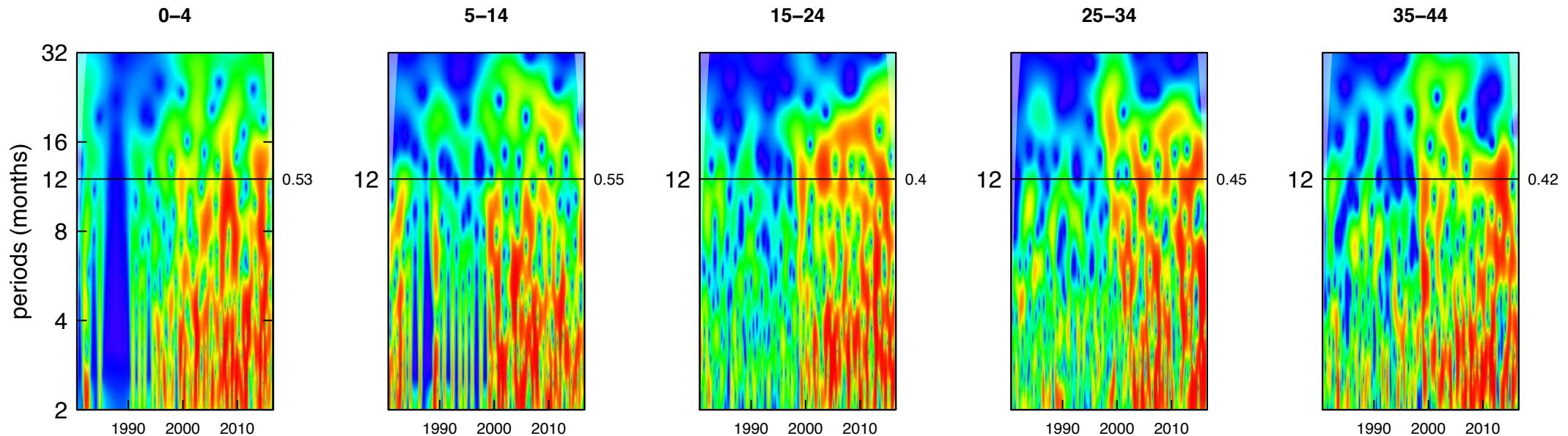
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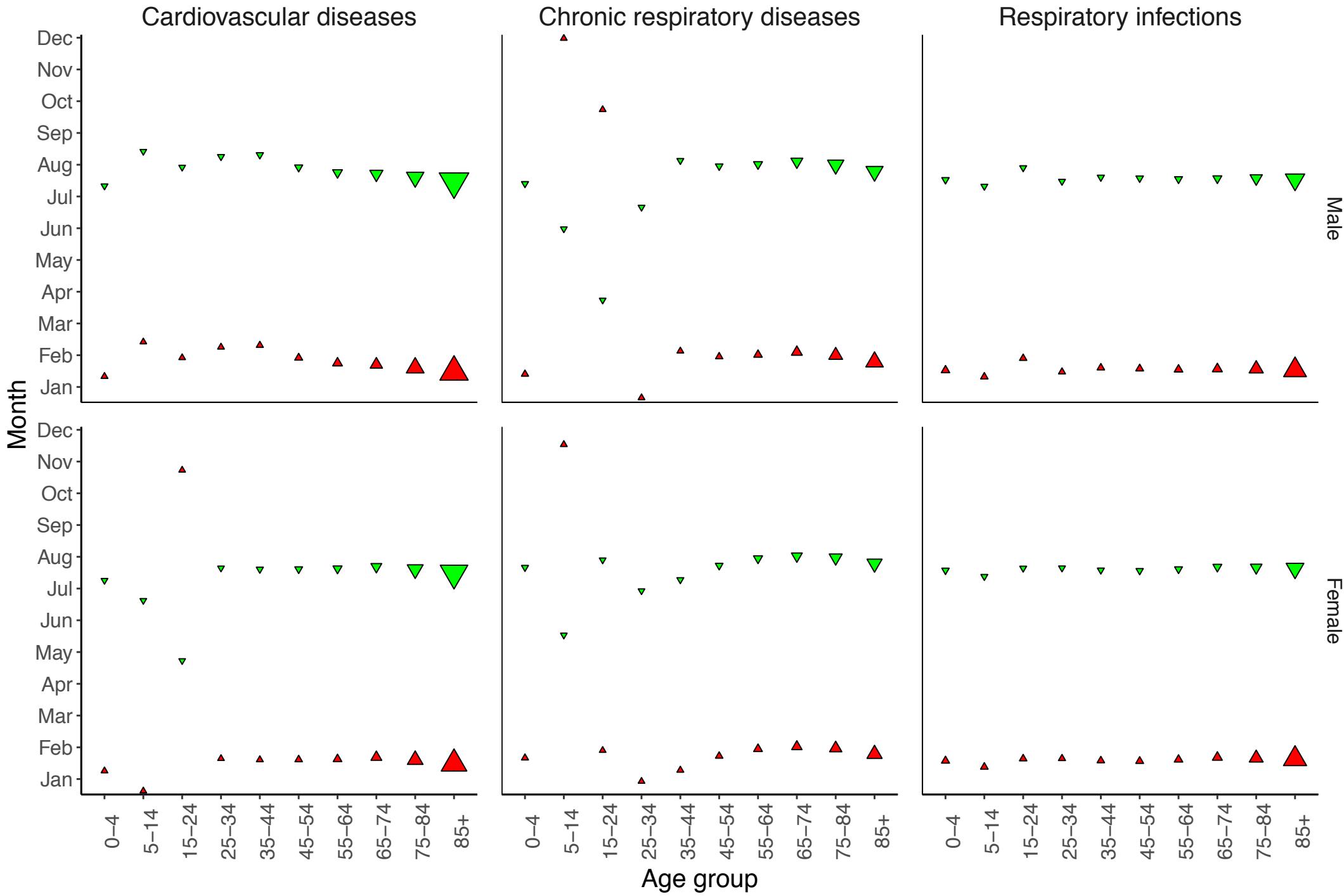
Male substance use disorders

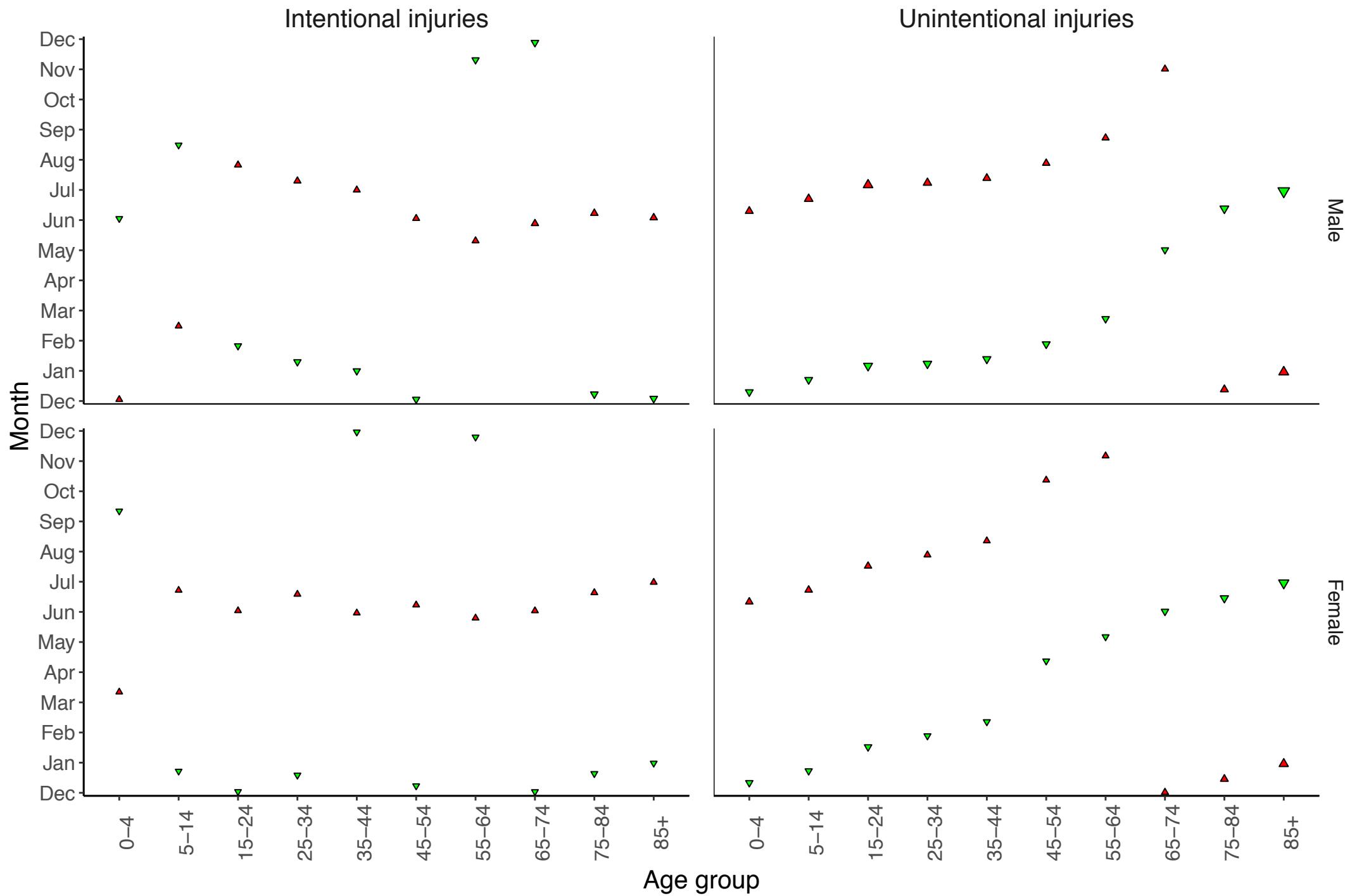


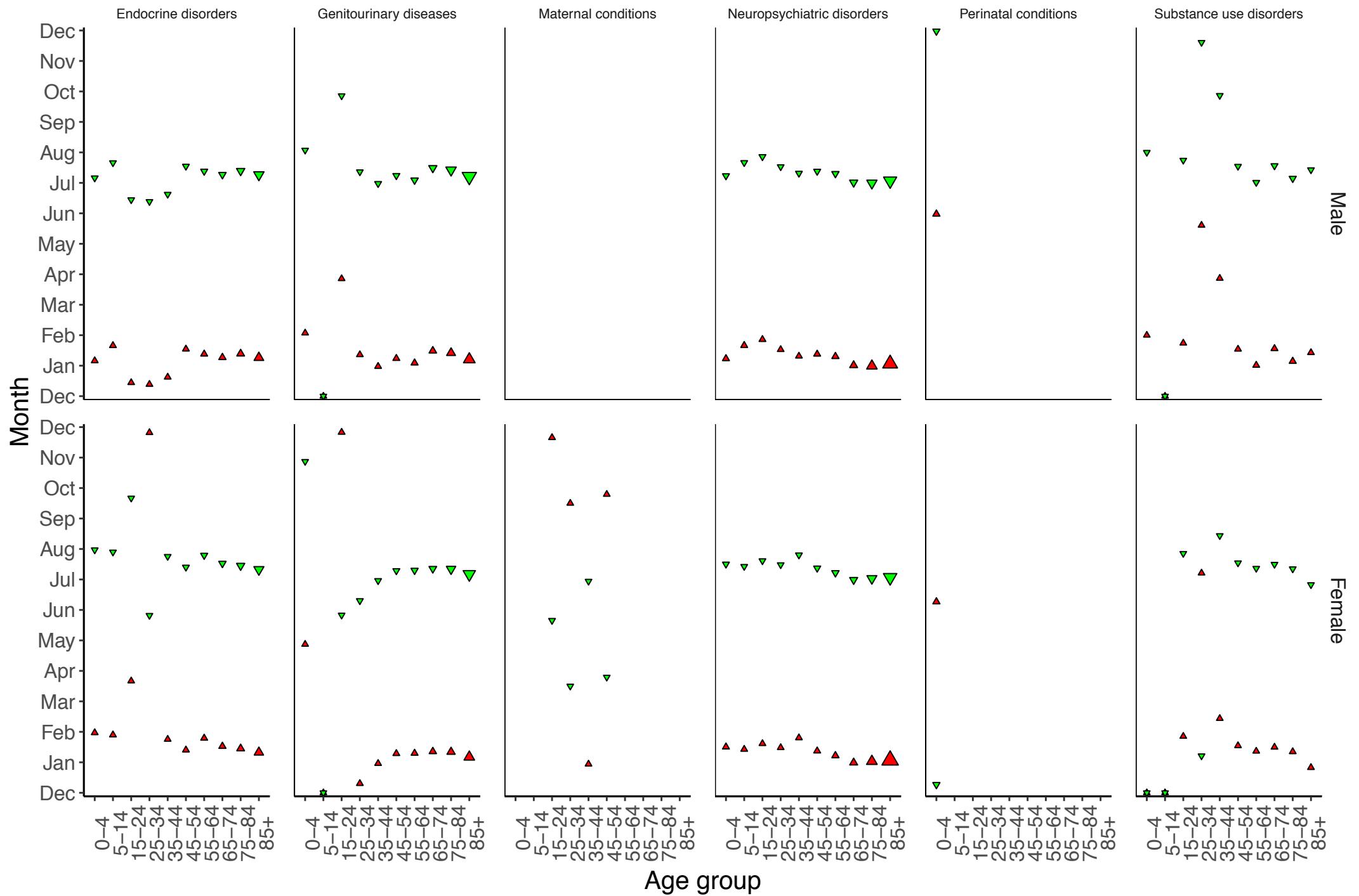
Female substance use disorders



21 **Supplementary Figure 2:** Mean timing of maximum and minimum cause-specific mortality at the
22 national level for additional causes of death, by sex and age group for 1980-2016. Red arrows indicate
23 the month of maximum mortality, and green arrows that of minimum mortality. The size of the arrow
24 is inversely proportional to its respective variance.







25 **Supplementary Figure 3:** National percent difference in death rates between the maximum and
26 minimum mortality months for additional causes of death in 2016 versus 1980, by sex and age group.

