



SCHIZOPHRENIA Factsheet

April 2022

How is latitude and season of birth related to risk for schizophrenia?

For some time, researchers have observed variations in population rates of schizophrenia, with rates changing depending on the time and place of birth. For example, the prevalence rate in a given population may be increased if birth was at a higher latitude with a cooler climate. These variables are also related to variances in diet, precipitation, sun exposure, socio-economic and genetic factors, as well as age and gender differences. Therefore the observed relationships between rates of schizophrenia and higher latitude may have several related explanations.

What is the evidence regarding latitude and season of birth?

Moderate to high quality evidence finds a small relationship between winter/spring births and increased risk for schizophrenia in the Northern Hemisphere. High quality evidence also finds a small relationship between winter/spring births and subclinical psychotic symptoms in children in Japan and the U.K.

Moderate quality evidence finds a small effect of increased prevalence of schizophrenia with increased latitude and decreased annual mean daily temperature in the Northern Hemisphere. Moderate to low quality evidence finds this association is greatest in people with older fathers at birth (over 45 years old), and in disadvantaged ethnic minority groups.

Moderate to high quality evidence finds a small effect of increased rates of deficit schizophrenia (predominately negative symptoms) in offspring born in the summer months of June and July in the Northern Hemisphere.

For more information see the technical table



NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.

Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.

Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.

While we hope you find this information useful, it is always important to discuss any questions about schizophrenia or its treatment with your doctor or other health care provider.

HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at neura.edu.au/donate/schizophrenia.