

country of origin was not recorded at death. It was constructed based on numbers of foreign-born in specific age-groups at each census employing a novel actuarial method. For example, if p is the mortality rate for the fb age 30 per year in the interval 1947–1954 then p is estimated from the data by $1 - (\text{number all fb age 35–45 in 1954} / \text{number all fb age 25–35 in 1947})^{1/7}$. p for other age-groups is calculated similarly. For all age-groups p will underestimate the mortality rate.

Results The Australian population grew exponentially between 1861 and 1986, reaching 15,602,150 million; its demographic composition was 64.7% foreign born initially and of predominantly British and Irish origin. Later twentieth century immigration was from mainly Southern European and Asian countries and FB accounted for a smaller proportion (22.4%) of the population by 1986. A strong period effect across all age groups and both genders was observed for CSD mortality. Rates of CSD rose consistently, particularly from the 1940s onwards, peaked in the 1960s and then began to decline sharply in the 1980s. Both male and female foreign-born showed similar all-cause mortality patterns at age midpoints from 30 through to 60 years of age.

Conclusion Our findings support both a commonly experienced period effect for CSD mortality but suggest also that early origins of foreign-born may contribute to mortality patterns.

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CONTEXTUAL INFLUENCES ON CHRONIC DISEASE: A MULTI-LEVEL ANALYSIS IN THE TWIN CITY OF RAMALLAH AND AL BIREH IN THE OCCUPIED PALESTINIAN TERRITORY

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10.1136/jech-2021-SSMabstracts.163

Background The features of the urban environment can support human health as well as harm it, but less is known about the context of middle eastern countries. The association between green space and the political classification of the urban environment and the risk of chronic illness was investigated in a novel setting, the twin city of Ramallah and AlBireh in the occupied Palestinian territory.

Methods We used multi-level regression analysis to link the 2017 census data with contextual characteristics from Geographic Information System data. The outcome variable is the presence or absence of chronic illness. The contextual explanatory variables are: the proportion of three types of green space in the areas of residence (mixed trees, crop trees and open space with little or no vegetation); the locality of residence (Ramallah, AlBireh and Refugee camps); and political land classification (Area A, B, and C). Generalised multi-level analysis was conducted in R using ‘lme4’ package, with individuals at level one ($n=54693$) and areas of residence at level two ($n=228$), adjusting for individual demographic and socio-economic characteristics.

Results Just over 13% of the chronic illness risk variation was attributed to the area of residence. On the political dimension and while accounting for the individual-level factors, only living in the context of a refugee camp had a significant positive association (OR 1.91 CI [1.17–3.09]). However, the

association between refugee camps and chronic illness rendered non-significant when green space variables were entered into the model. In the final model, only the proportions of ‘mixed’ trees in the residential areas had a significant inverse association with the risk of chronic illness (OR 0.96 CI [0.95–0.97]), all else being equal.

Conclusion Within the confines of a cross-sectional, observational study, the findings shed light on the possible role of the urban environment context as a determinant of health, irrespective of individual-level factors. Our ability to differentiate between several types of green space was important, as findings demonstrated that not all types are associated with reduced risk of chronic illness. Our results from a middle eastern setting add to the existing evidence, largely in Western countries, that trees in urban settings are important and beneficial to human health. Also, to reduce inequalities in health researchers and policymakers should give more attention to the disadvantaged contexts of refugee camps.

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INCIDENCE, OUTCOMES AND CHARACTERISTICS OF OUT-OF-HOSPITAL CARDIAC ARRESTS IN PATIENTS WITH PSYCHIATRIC ILLNESS: A SYSTEMATIC REVIEW

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10.1136/jech-2021-SSMabstracts.164

Background People with a history of psychiatric illness have a lower life expectancy than people without psychiatric illness, largely due to an excess burden of cardiovascular disease (CVD). Despite the well-established association between psychiatric illnesses and risk of CVD in general, little is known about psychiatric illness relates to the incidence and outcomes of out-of-hospital cardiac arrest (OHCA) specifically. We therefore aimed to conduct a systematic review of the literature to critically appraise and summarise the existing evidence on incidence, outcomes and characteristics of OHCA in patients with psychiatric illness.

Methods We searched Embase, Medline, PsycINFO and Web of Science from the first publication within each database to 16th December 2020 using a detailed electronic search strategy containing a wide range of terms for psychiatric illness and OHCA. We included observational studies that reported on the characteristics of patients with OHCA or OHCA incidence or survival by psychiatric illness status (or that reported on patients with psychiatric illness without including a comparison group). Two authors independently screened the search results, assessed risk of bias in relevant studies and extracted data. We registered the protocol of this review with PROSPERO (CRD42021229545).

Results Our search retrieved 10,610 potentially eligible studies, of which nine met our inclusion criteria. Of these, eight were retrospective cohort studies and one was a case-control study comprising 5,906 OHCA patients with history of psychiatric illness across five countries. Three studies included patients with depression only, whilst six studies varied in their definition of psychiatric illness. Eight studies reported on psychiatric illness status with respect to OHCA incidence and only one study assessed OHCA outcome. Most studies found that psychiatric illness was associated with an increased risk of OHCA. Among patients with an OHCA, those with