Lieu de vie comme déterminant de troubles psychiques?

Maria Melchior

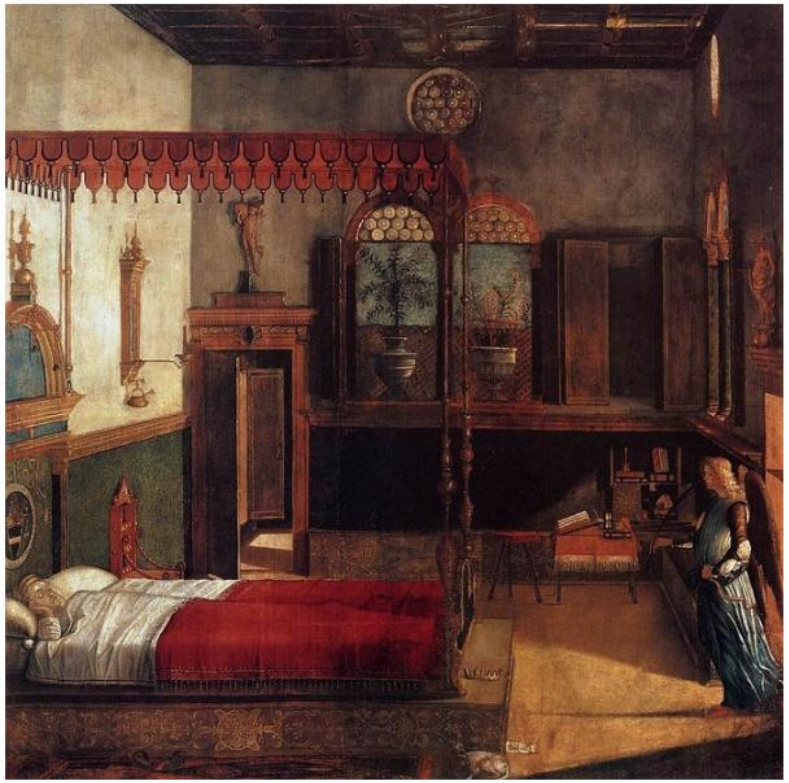
IPLESP, INSERM/Sorbonne Université

CHAIRE ANNUELLE SANTÉ PUBLIQUE

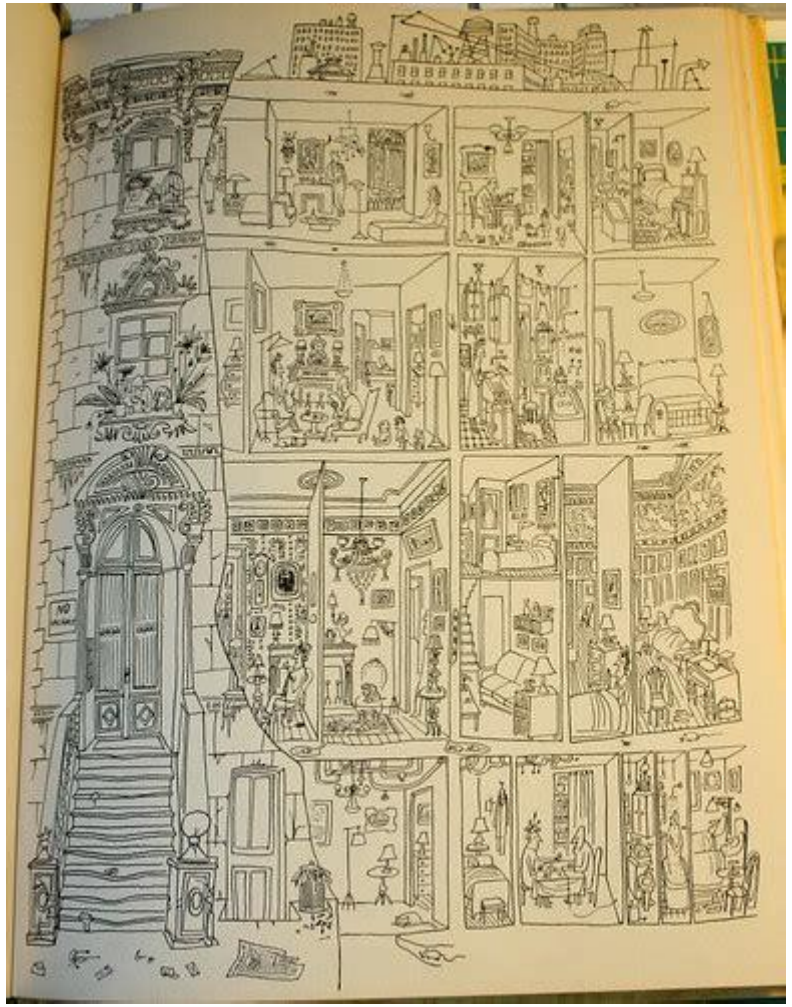
En partenariat avec l'agence nationale Santé publique France

« Habiter une chambre, qu'est-ce que c'est ? Habiter un lieu, est-ce se l'approprier ? Qu'est-ce que s'approprier un lieu ? À partir de quand un lieu devient-il vraiment vôtre ? Est-ce quand on a mis à tremper ses trois paires de chaussettes dans une bassine de matière plastique rose ? Est-ce quand on s'est fait réchauffer des spaghettis au-dessus d'un camping-gaz ? Est-ce quand on a utilisé tous les cintres dépareillés de l'armoire-penderie ? Est-ce quand on a punaisé au mur une vieille carte postale représentant le Songe de sainte Ursule de Carpaccio? Est-ce quand on y a éprouvé les affres de l'attente, ou les exaltations de la passion, ou les tourments de la rage de dents ? Est-ce quand on a tendu les fenêtres de rideaux à sa convenance, et posé les papiers peints, et poncé les parquets ? »

Georges Perec, *Espèce d'espaces*, 1974

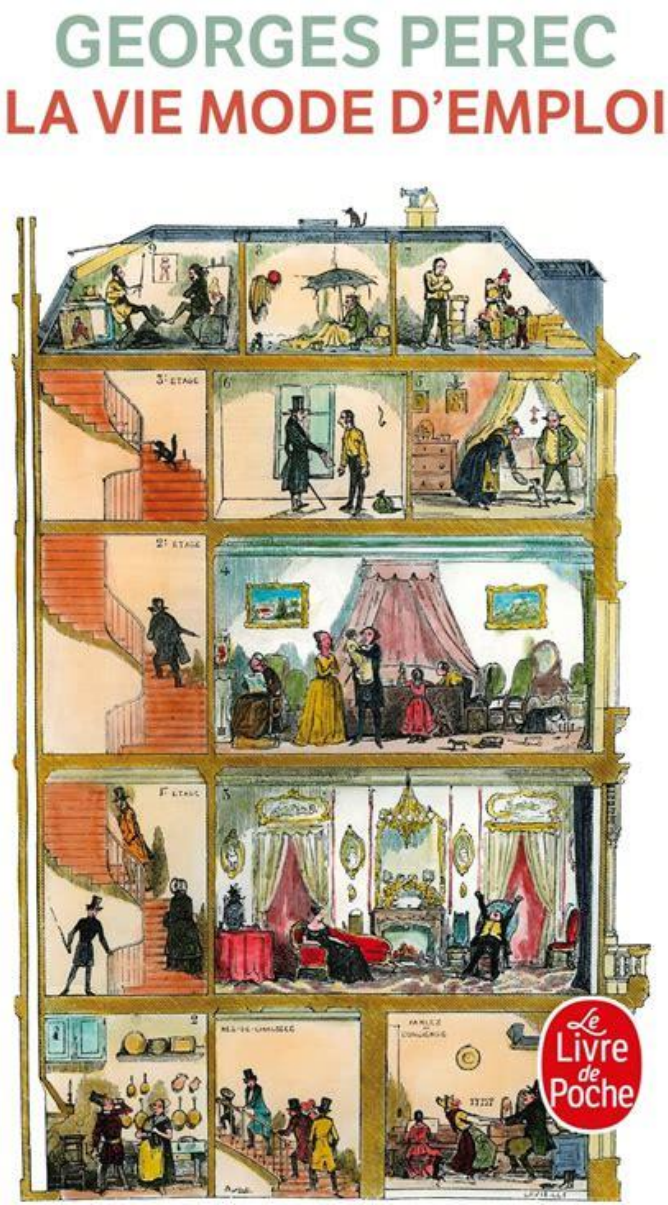


Vittore Carpaccio, Le songe de Sainte-Ursule, 1490-1495



Saul Steinberg, The Art of Living

Georges Perec (1936-1982)



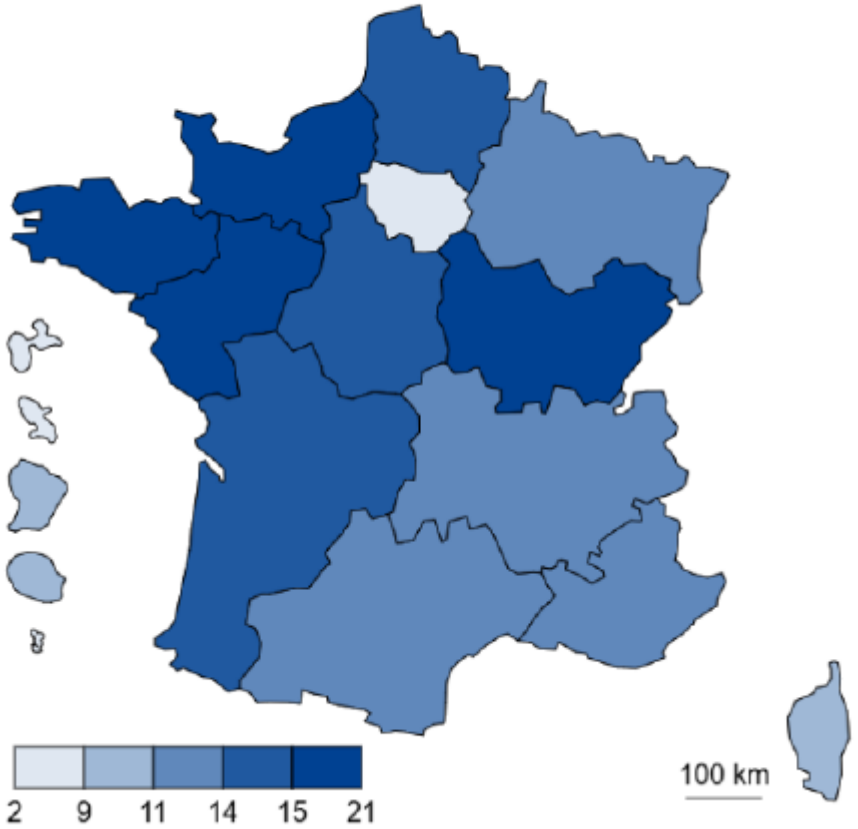
Plan de la présentation

- Géographie de la santé mentale
- Quartier, liens de voisinage
- Expositions physico-chimiques
- Changer l'environnement?

Géographie de la santé mentale

Le suicide en France (n/100 000)

Figure 15 – Taux standardisé de décès par suicide par région, France entière, 2023



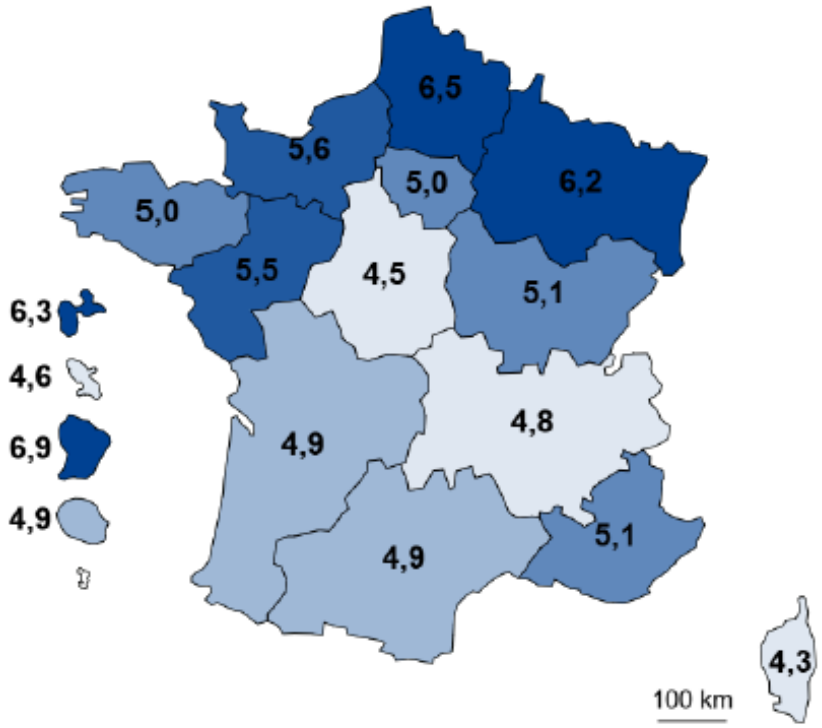
N=8848

Surveillance annuelle des conduites suicidaires, Santé Publique France, 2025

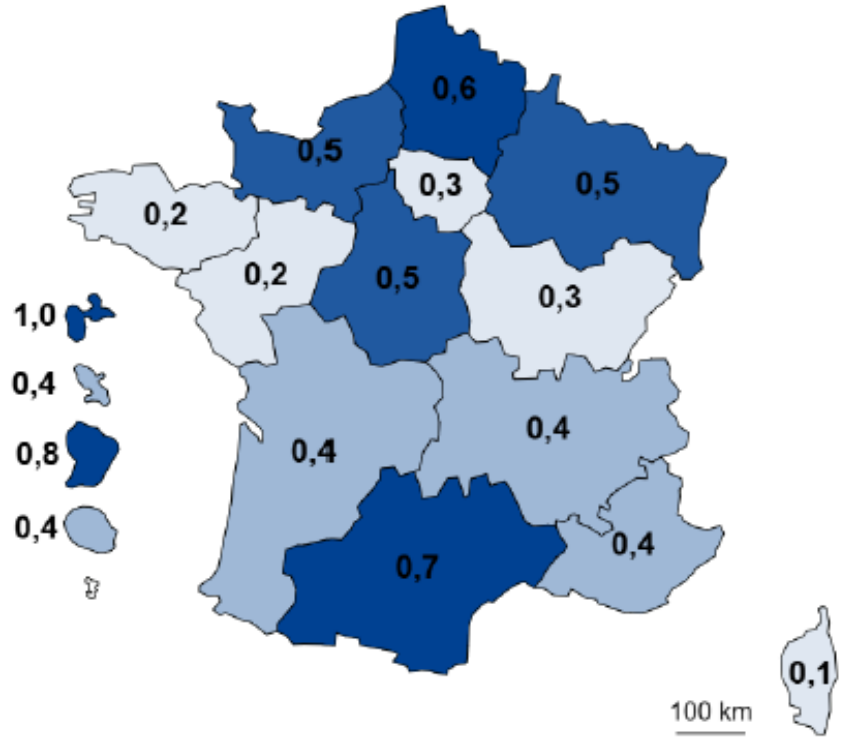
Géographie du risque suicidaire en France, Baromètre de Santé Publique France 2024 (%)

N=34950, 18-75 ans

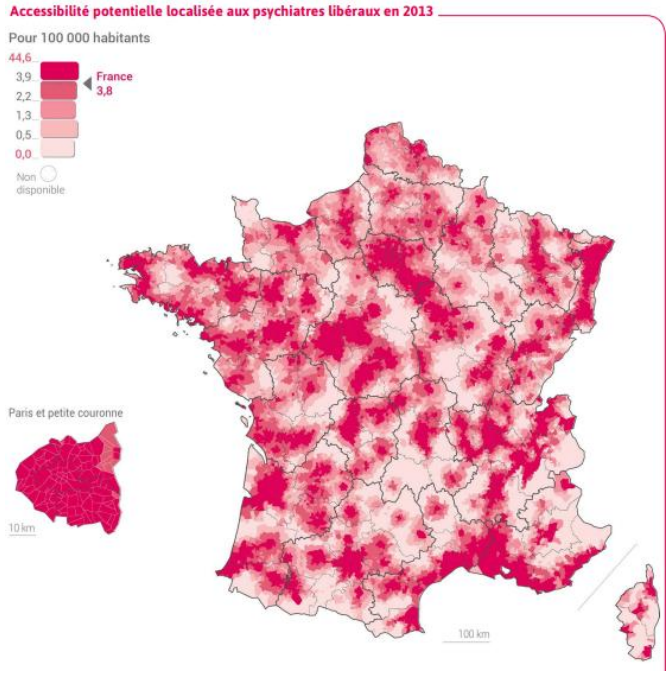
Pensées suicidaires au cours des 12 derniers mois

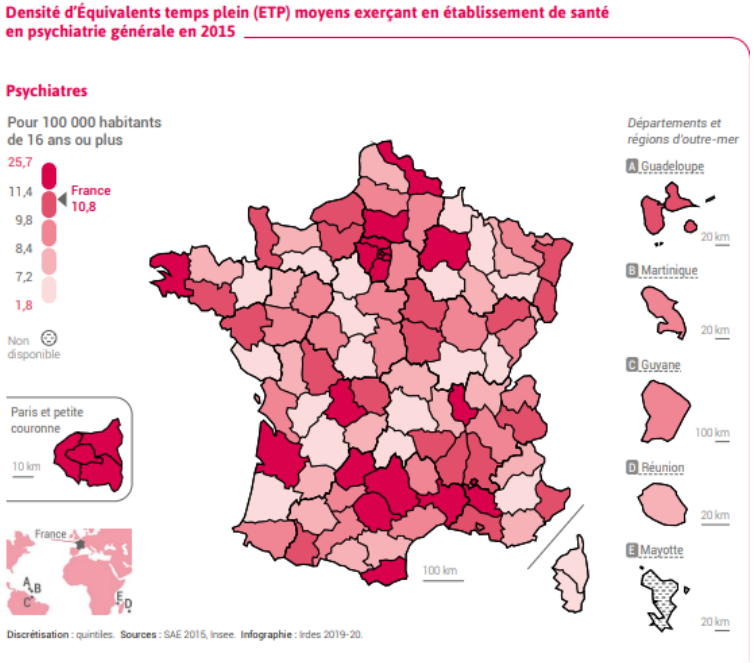


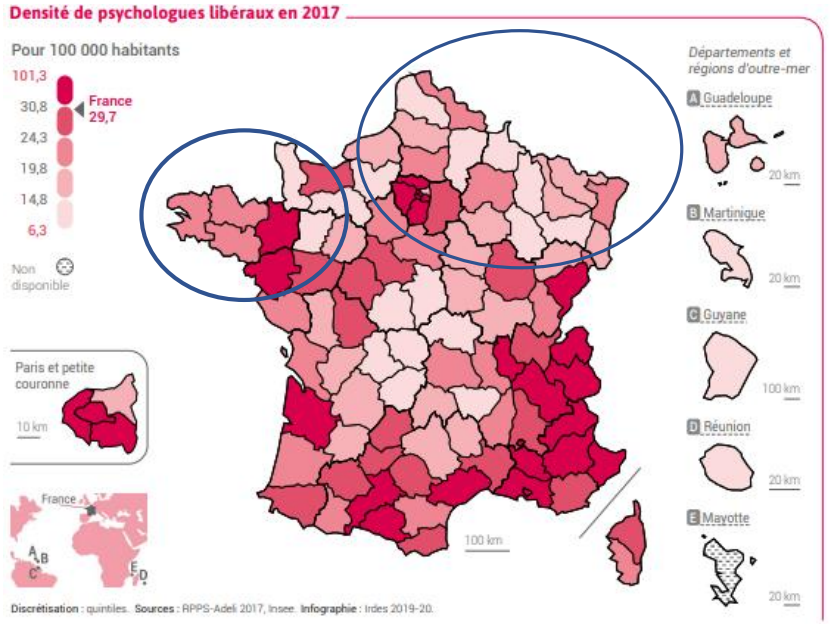
Tentatives de suicide au cours des 12 derniers mois



Géographie des soins en psychiatrie en France







Atlas de la santé mentale en France, Institut de Recherche et Documentation en Economie de la Santé (IRDES), 2020

Quartier, liens de voisinage

Des villes pourvoyeuses de troubles psychiques?

DIALOGUES IN CLINICAL NEUROSCIENCE
2023, VOL. 25, NO. 1, 122–138
https://doi.org/10.1080/19585969.2023.2272824

REVIEW ARTICLE

Urbanicity and psychotic disorders: Facts and hypotheses

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ABSTRACT

In the present qualitative literature review, we summarise data on psychotic disorders and urbanicity, focusing particularly on recent findings. Longitudinal studies of the impact of urbanicity on the risk for psychotic disorders have consistently shown a significant association, with a relative risk between 2 and 2.5. However, most of the original studies were conducted in Western Europe, and no incidence studies were conducted in low- and middle-income countries. European studies suggest that neighbourhood-level social fragmentation and social capital may partly explain this association. Exposure to air pollution (positive association) and green space (negative association) may also be part of the explanation, but to date, available data do not make it possible to conclude if they act independently from urbanicity, or as part of the effect of urbanicity on psychotic disorders. Finally, several studies have consistently shown significant associations between the polygenic risk score for schizophrenia and urbanicity, with several possible explanations (pleiotropic effects, results of prodromic symptoms, or selection/intergenerational hypothesis). Thus, more studies are needed to understand the factors that explain the association between urbanicity and the risk of psychotic disorders. Further studies should account for the interdependence and/or interactions of different psychosocial and physical exposures (as well as gene-environment interactions), and explore this association in low- and middle-income countries.

ARTICLE HISTORY
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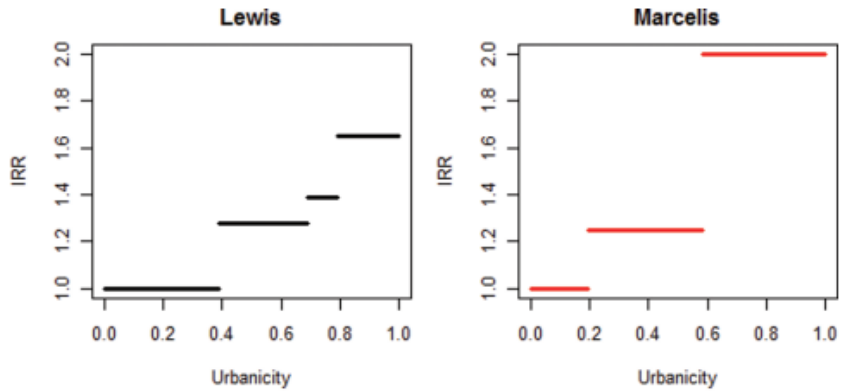
KEYWORDS
Urbanicity; psychotic disorders; schizophrenia; psychosis; psychotic symptoms; air pollution; psychosocial stress

Degré d'urbanisation et risque de schizophrénie

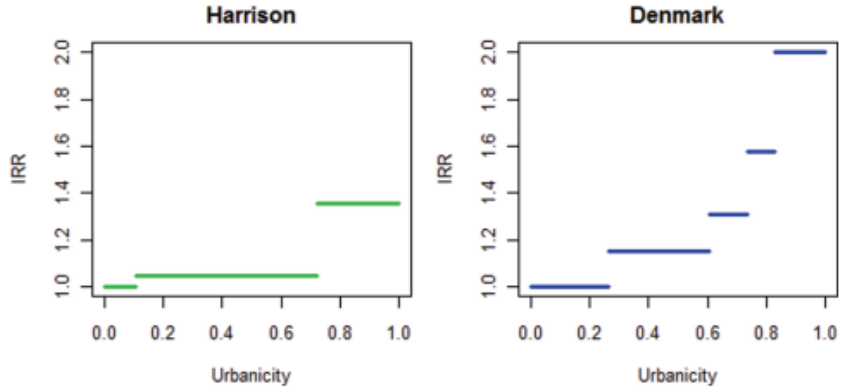
Taille/ densité de population

Suède



Pays-Bas

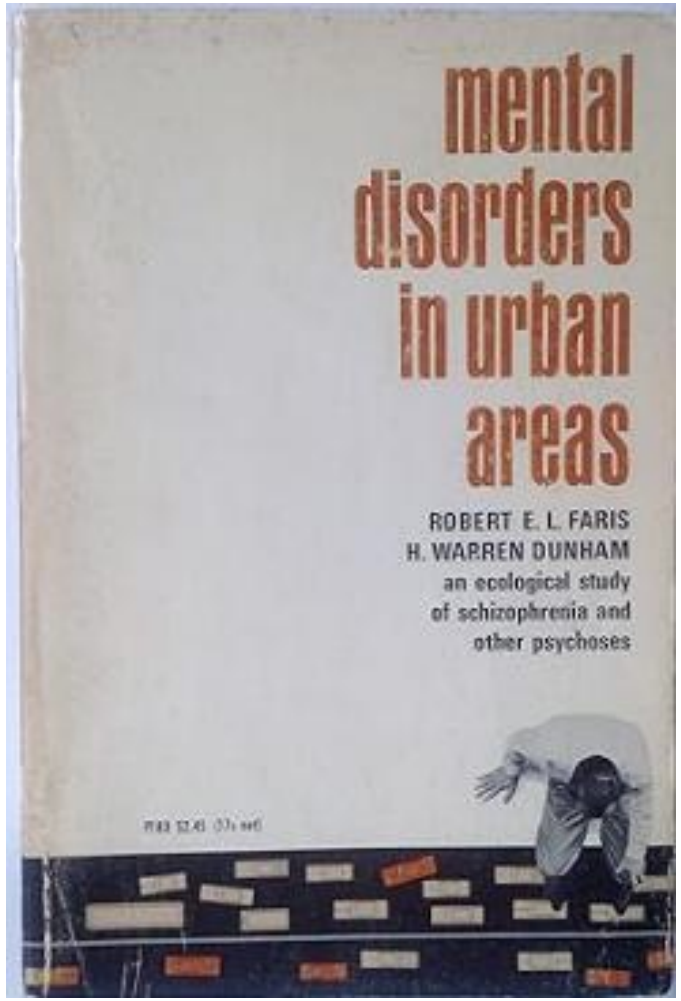
Suède

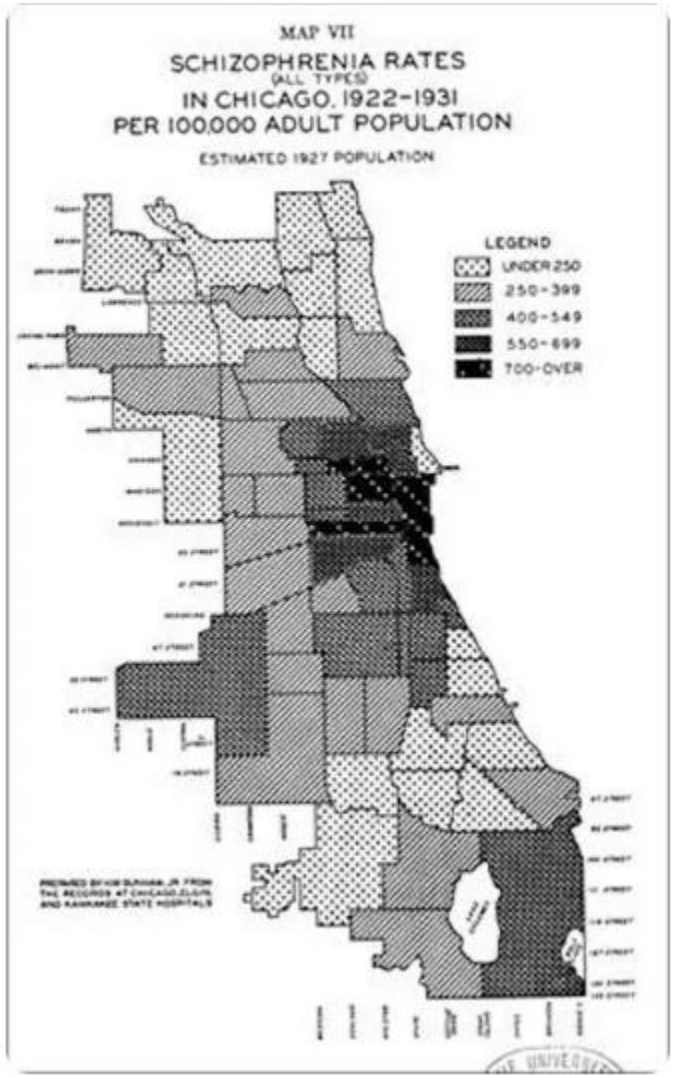


Danemark

Fig. 1. Incidence Rate Ratio (IRR) of schizophrenia in different urbanicity levels. In each study, the number of horizontal lines corresponds to the number of urbanicity exposure groups, the length of each line on the *x*-axis (bin width) is analogous to the relevant size of the person-years at risk in each group, and the height on the *y*-axis corresponds to the given IRR with the baseline group always set at 1.

Vassos et al, Schizophrenia Bulletin, 2012


mental disorders in urban areas
ROBERT E. L. FARIS
H. WARREN DUNHAM
an ecological study of schizophrenia and other psychoses


MAP VII
SCHIZOPHRENIA RATES
(ALL TYPES)
IN CHICAGO, 1922-1931
PER 100,000 ADULT POPULATION
ESTIMATED 1927 POPULATION
LEGEND
UNDER 250
250-399
400-549
550-699
700-OVER

Pauvreté du quartier de résidence et santé mentale

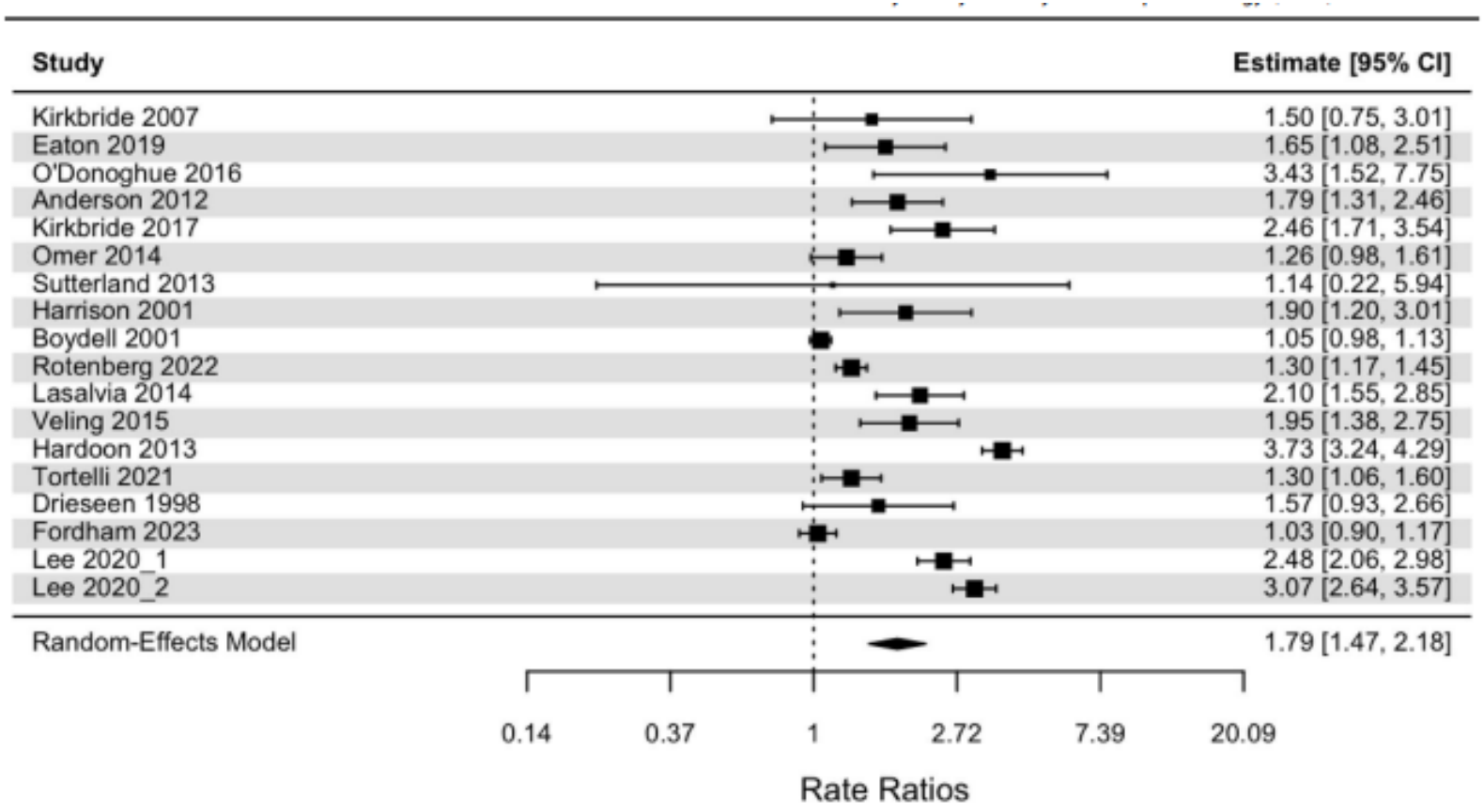


Fig. 2 Forest plot for meta-analyses of the association between neighborhood deprivation and incidence of psychotic disorders

James et al, Social Psychiatry and Psychiatric Epidemiology, 2025

Niveau de pauvreté du quartier de résidence et fonctionnement cérébral

N= 6323 enfants entre 9-11 et 12-14 ans

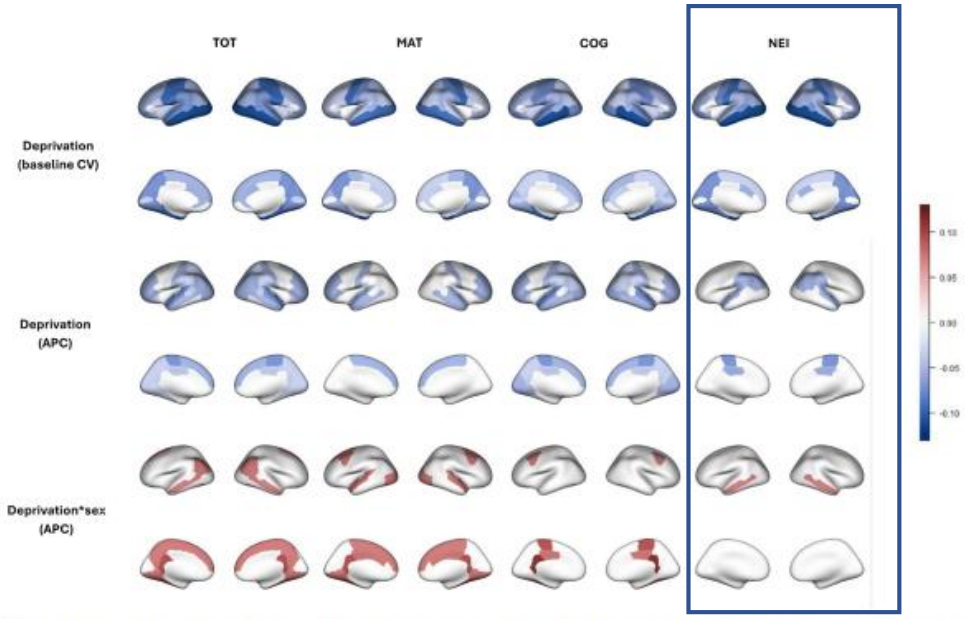


Figure 3 Main (deprivation) and interaction (deprivation × sex) effects on cortical volume (CV) at baseline and CV annual percentage change (APC). TOT, total deprivation; MAT, material deprivation; COG, cognitive deprivation; NEI, neighbourhood deprivation; standardised coefficients are shown in colour for regions with significant associations (FDR-adjusted $p < .05$)

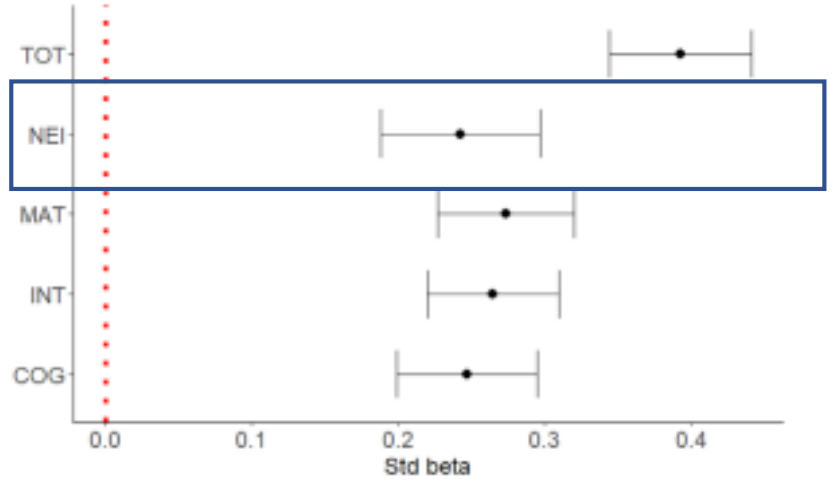


Figure 2 Effect of deprivation measures at baseline on PQ-BC score at follow-up. TOT, total deprivation; MAT, material deprivation; INT, interpersonal deprivation; COG, cognitive deprivation; NEI, neighbourhood deprivation; filled circles = standardised coefficients; error bars = standardised confidence intervals; red dotted line = no effect

Thomas et al, Journal of Child Psychology and Psychiatry, 2025

Cohésion sociale

Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy

Robert J. Sampson, Stephen W. Raudenbush, Felton Earls

It is hypothesized that collective efficacy, defined as social cohesion among neighbors combined with their willingness to intervene on behalf of the common good, is linked to reduced violence. This hypothesis was tested on a 1995 survey of 8782 residents of 343 neighborhoods in Chicago, Illinois. Multilevel analyses showed that a measure of collective efficacy yields a high between-neighborhood reliability and is negatively associated with variations in violence, when individual-level characteristics, measurement error, and prior violence are controlled. Associations of concentrated disadvantage and residential instability with violence are largely mediated by collective efficacy.

Sampson et al, Science, 1997

Table 3. Effects of stressful life events on adolescent mental health outcomes, stratified by level of neighbourhood cohesion[a]

	SLE*cohesion interaction		Low neighbourhood cohesion			Higher neighbourhood cohesion		
				(95% CI)			(95% CI)	
	Score χ^2	*p* value	OR	lower	upper	OR	lower	upper
Depression/Anxiety	**14.98**	<0.001	**3.11**	**1.64**	**5.90**	0.99	0.71	1.37
Suicidal ideation	**7.52**	**0.006**	**5.25**	**2.28**	**12.08**	1.30	0.94	1.81
Suicide attempt	2.79	0.094	**3.02**	**1.24**	**7.37**	1.44	0.90	2.29
Conduct disorder	**10.90**	**0.001**	**4.27**	**2.23**	**8.19**	1.09	0.78	1.52
Property offence	**8.68**	**0.003**	**4.21**	**2.28**	**7.76**	1.21	0.92	1.60
Hyperactivity	0.27	0.60	1.01	0.53	1.93	1.15	0.87	1.54

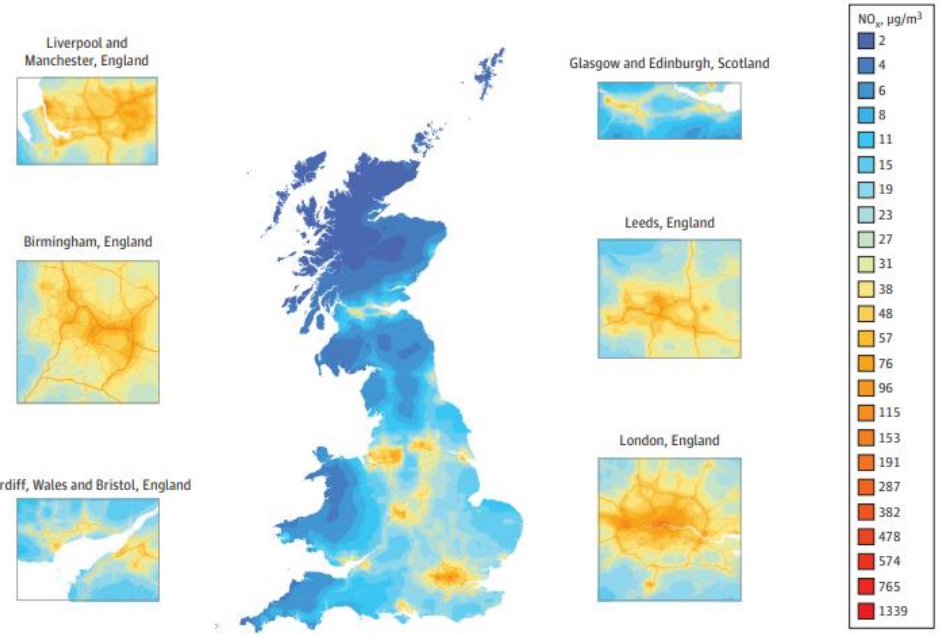
95% CI, 95% confidence interval.
Note: significant χ^2s and odds ratios (ORs) are presented in bold.
[a]Adjusted for child sex, ethnicity, caregiver depression, and family poverty.

Kingsbury et al, Psychological Medicine, 2020

Expositions physico-chimiques

Pollution de l'air et symptômes psychotiques

Figure 2. Mean Annual Concentrations of Nitrogen Oxides (NO_x) Outdoor Air Pollution Across the United Kingdom



Annual concentrations are averaged across 2004 and 2012. Inserts depict concentrations in major cities, including London, England.

Table 2. Fully Adjusted Association of NO_x and $PM_{2.5}$ Air Pollution Exposure in Childhood and Adolescence With the Correlated Factors of Internalizing, Externalizing, and Thought Disorder at 18 Years of Age[a]

	Air pollution exposure measured continuously and scaled to the interquartile range				Air pollution exposure dichotomized to test extremes (top quartile vs bottom three)			
	NO_x		$PM_{2.5}$		NO_x		$PM_{2.5}$	
Disorder	b (95% CI)	*P* value	b (95% CI)	*P* value	b (95% CI)	*P* value	b (95% CI)	*P* value
General psychopathology	1.40 (0.41 to 2.38)	.005	0.45 (−0.26 to 1.15)	.22	2.62 (0.96 to 4.27)	.002	2.04 (0.36 to 3.72)	.02
Internalizing	1.07 (0.10 to 2.04)	.03	0.25 (−0.47 to 0.96)	.50	1.81 (0.16 to 3.45)	.03	1.49 (−0.19 to 3.17)	.08
Externalizing	1.42 (0.53 to 2.31)	.002	0.64 (0.02 to 1.26)	.04	2.37 (0.81 to 3.94)	.003	1.54 (−0.01 to 3.09)	.05
Thought disorder	1.54 (0.50 to 2.57)	.004	0.51 (−0.23 to 1.24)	.18	3.18 (1.46 to 4.90)	<.001	2.50 (0.75 to 4.25)	.005

Abbreviations: NO_x, a regulated gaseous pollutant composed of nitric oxide and nitrogen dioxide; $PM_{2.5}$, a regulated aerosol pollutant with suspended solid and liquid particles smaller than 2.5 µm in diameter.

[a] The table presents analyses conducted in the full analytic sample of participants with complete air pollution and psychopathology data (analytic sample N = 2039). The b coefficients represent unit change in psychopathology factor scores per interquartile range increment increase in pollutant exposure and moving from the bottom 3 quartiles of air pollutant exposure to the top quartile. General psychopathology was standardized to a mean (SD) of 100 (15). The nonindependence of children within families was accounted for in all models by adjusting the SEs.

Reuben et al, JAMA Network Open, 2021

Espaces verts et risque de trouble psychotique

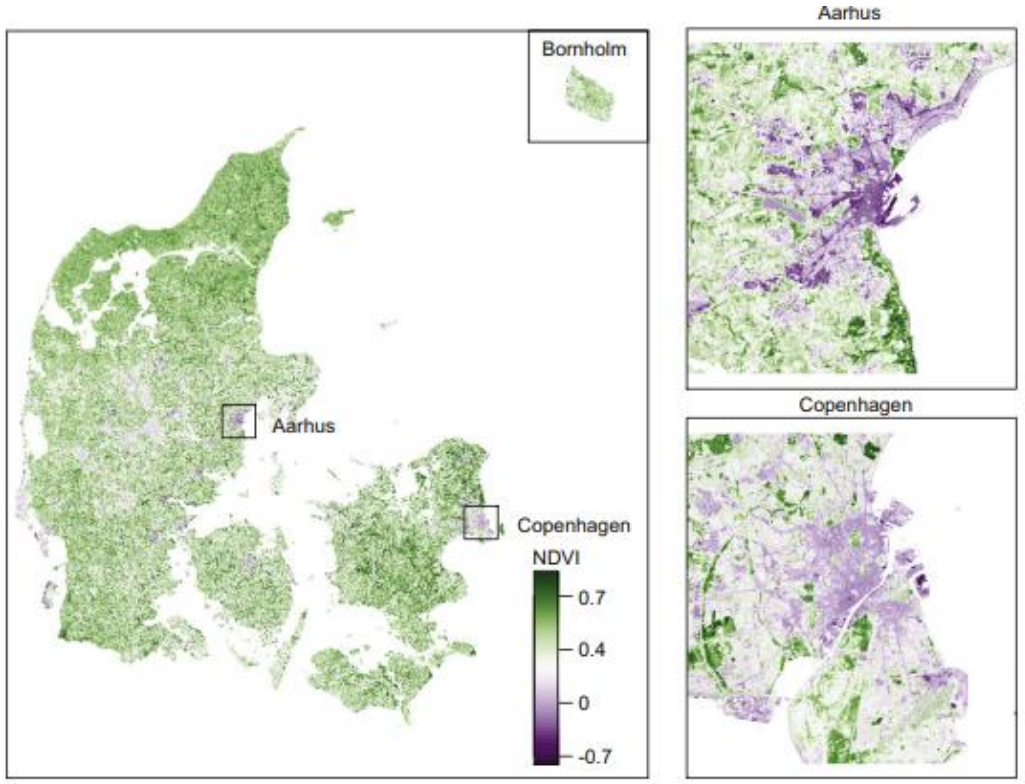


Fig. 1. Mean normalized difference vegetation index (NDVI) for the period 1985–2013 of Denmark and two selected cities. High values of NDVI indicate dense vegetation whereas low values of NDVI indicate sparse vegetation. The zoom-ins show urban differences in NDVI between two cities of the highest (Copenhagen) and medium degree of urbanization (Aarhus).

N=943 027

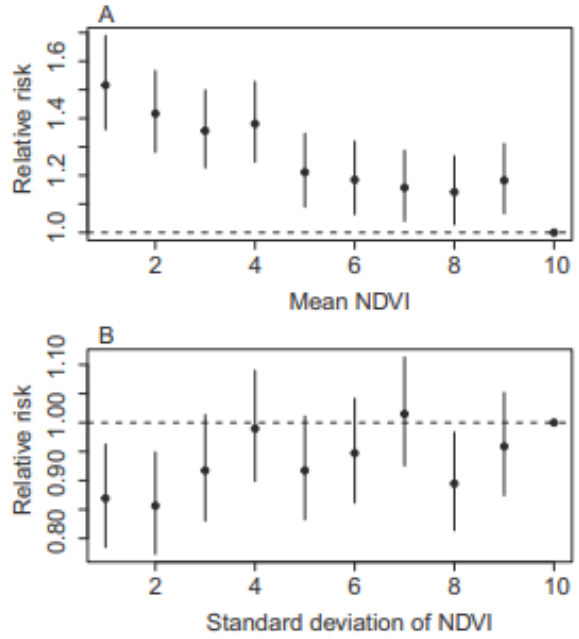


Fig. 2. Incidence rate ratio of schizophrenia spectrum disorder (F20–29) for deciles of A) mean and B) standard deviation of the normalized difference vegetation index (NDVI) at 210 m around place of residence at age 10 for 943,027 persons living in Denmark during the period 1985–2013. Both measures of NDVI were fitted as deciles in classes of ten. Estimates of incidence rate ratio were adjusted for age, year of birth, and sex and plotted with 95% confidence intervals. All estimates are relative to the reference level set to class 10 for both mean and standard deviation of NDVI.

Engemann et al, Schizophrenia Research, 2016

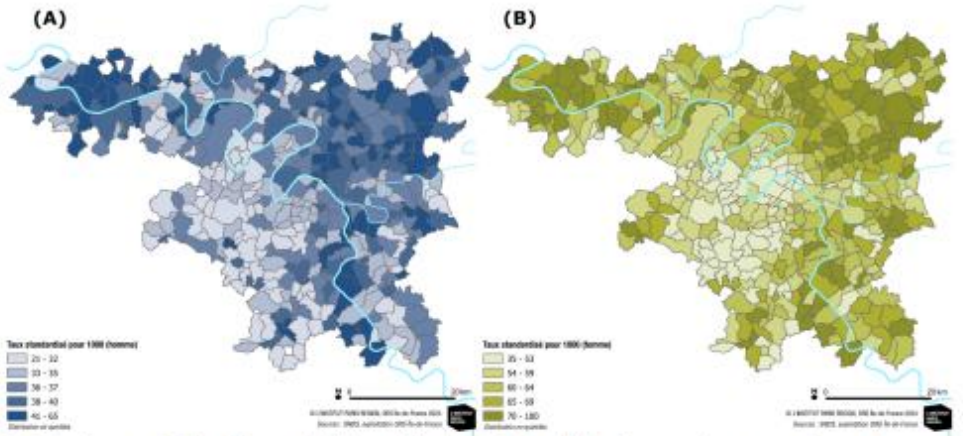
Bruit et traitements psychotropes

TROUBLES DU SOMMEIL ET BRUIT NOCTURNE EN ÎLE-DE-FRANCE

ÉTUDE SOMNIBRUIT : REMBOURSEMENTS DE PSYCHOTROPES À VISÉE HYPNOTIQUE ET BRUIT NOCTURNE LIÉ AUX TRANSPORTS ET À LA VIE RÉCRÉATIVE

BRUITPARIF · VILLE DE PARIS · HEALTH DATA HUB · Université Paris Cité · ASSISTANCE PUBLIQUE HÔPITAUX DE PARIS · L'INSTITUT PARIS REGION · ORS OBSERVATOIRE RÉGIONAL DE SANTÉ

Figure 12. Cartographie du taux standardisé sur l'âge de patients ayant reçu des psychotropes à visée hypnotique dans la zone dense francilienne (2017-2019), standardisé sur l'âge, chez les hommes (A) et les femmes (B)



Note : les taux sont catégorisés en quintile, les catégories sont donc différentes pour chaque sexe et ne sont pas directement comparable sur ces cartes

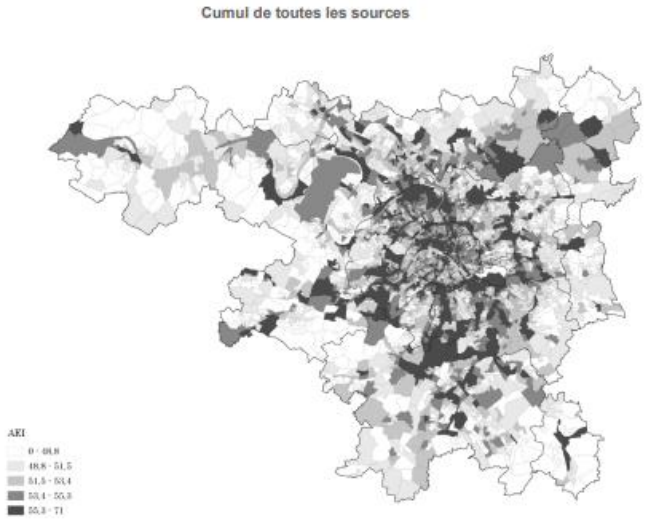
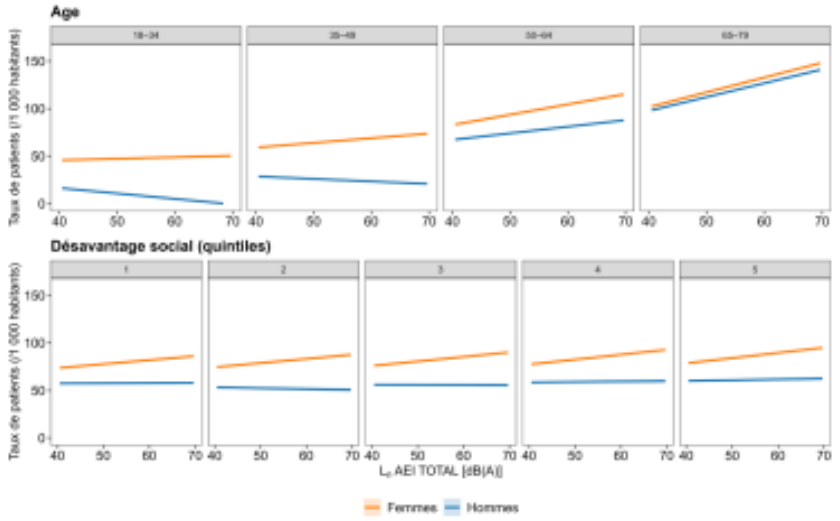
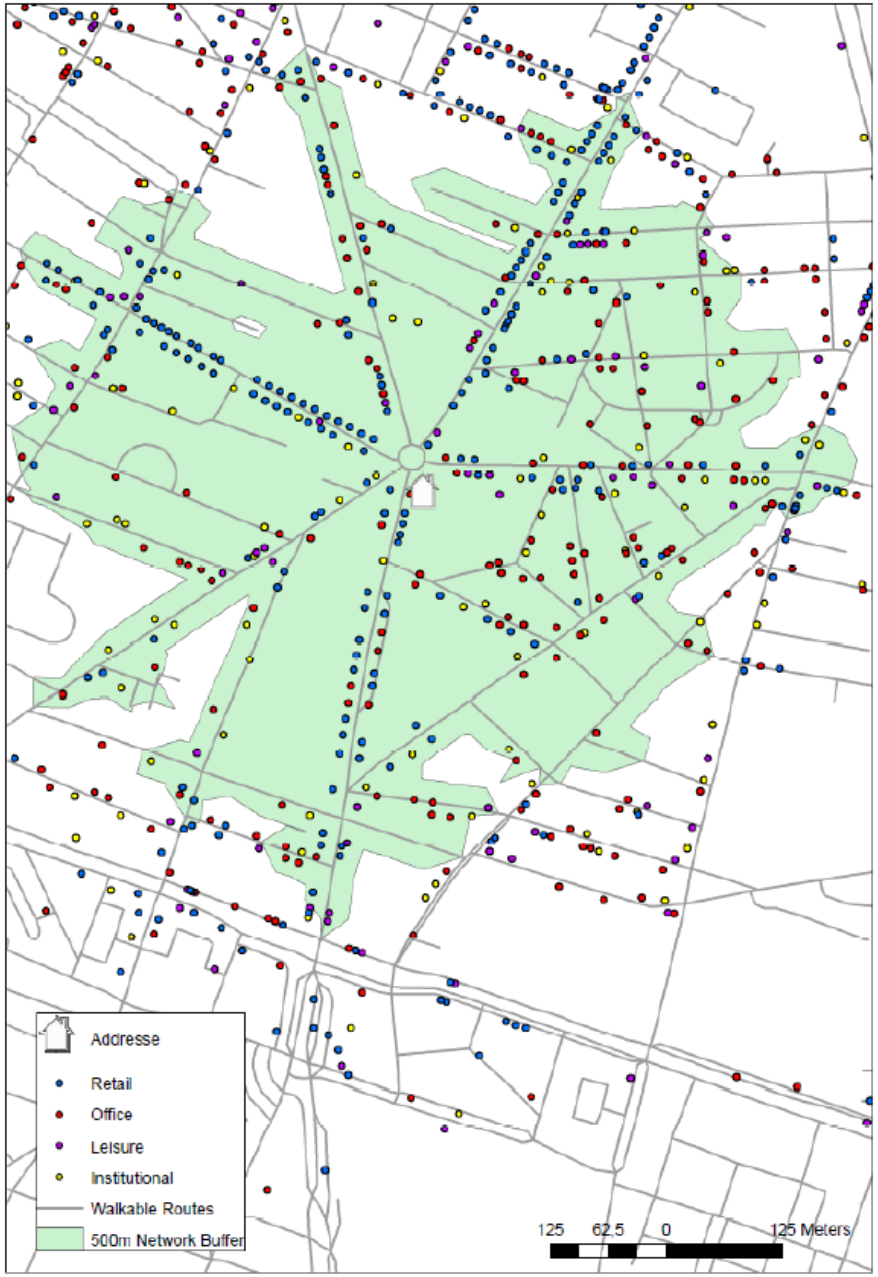


Figure 23 : Relations entre l'exposition nocturne au bruit environnemental toutes sources confondues et le taux brut de patients remboursés pour des psychotropes à visée hypnotique, selon le sexe et la classe d'âge (en haut), et le sexe et le quintile de l'indice de désavantage social (en bas).



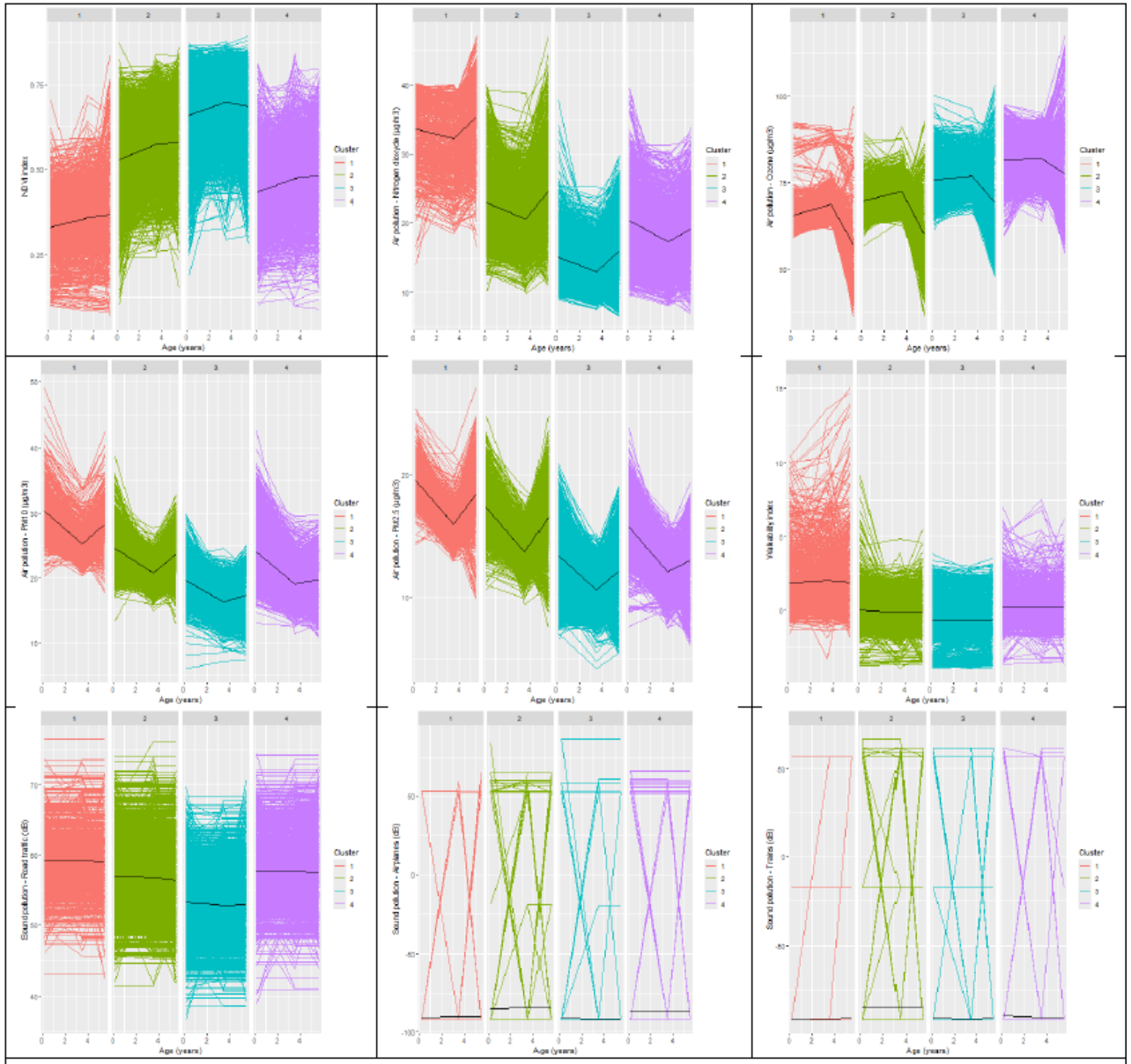
Marchabilité



Profils d'exposition à multiples facteurs résidentiels

Projet RESEDA

European Research Council
Established by the European Commission



S2: Trajectories per K-means cluster
From left to right and top to bottom: NDVI index, NO_2, Ozone, PM10, PM2.5, Walkability index, Road traffic noise, Aircraft noise, Railway noise. The black line represents the average trajectory of the cluster.

Changer l’environnement?

Rénovation urbaine et santé mentale

Contents lists available at ScienceDirect

Health and Place

journal homepage: http://www.elsevier.com/locate/healthplace

Urban regeneration and mental health: Investigating the effects of an area-based intervention using a modified intention to treat analysis with alternative outcome measures

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ARTICLE INFO

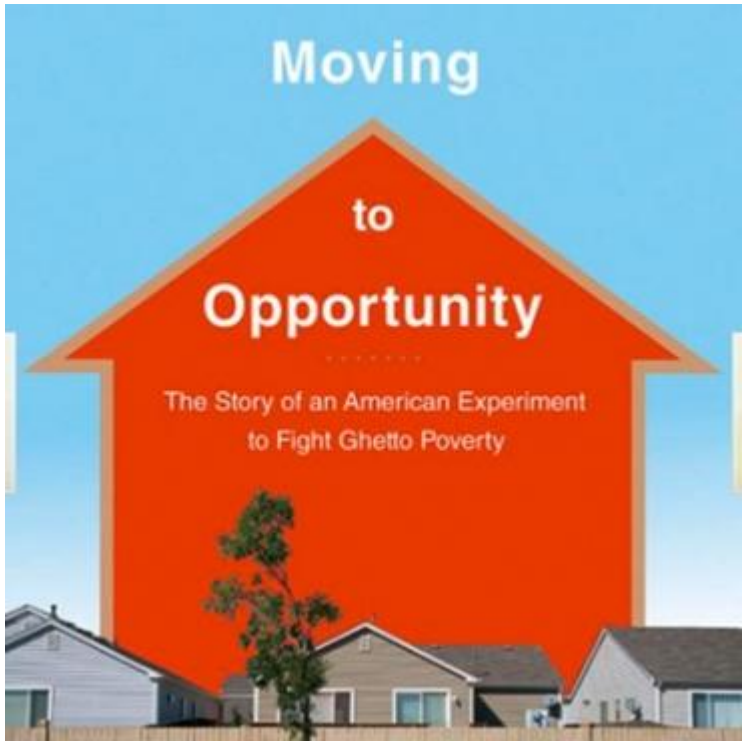
Keywords:
Mental health
Mental wellbeing
Urban regeneration
Area-based interventions

ABSTRACT

A quasi-experimental study of the mental health impacts of regeneration was carried out across fifteen communities in Glasgow, UK, grouped into five and then four types of intervention area. Regression modelling was undertaken to examine the effects of living in each type of area upon mental health (MCS-12 and SF-12 MH) and mental wellbeing (WEMWBS). Living in regeneration areas had no impacts on mental health or wellbeing, possibly due to incomplete implementation. Positive impacts from living in areas of housing improvement were not evident separately for areas of high-rise housing. Areas surrounding regeneration areas exhibited gains in mental health and wellbeing, contrary to notions of negative spillover. Moving between areas had negative effects, especially for those moving beyond the study areas. Changes in mental wellbeing appear less substantial compared with changes in mental health.

Glasgow, Ecosse

Moving To Opportunity, n=4610 familles, 1994-2010
Boston, Baltimore, Chicago, Los Angeles, New York



- Familles vivant dans des quartiers défavorisés
- Intervention: bons pour aider à payer le loyer
- Groupe témoin

Moving To Opportunity:
10-15 ans de suivi (n=2,872, âge médian 16 ans)

Exhibit 2

Baseline Characteristics of the Adult Analytic Sample, by Random Assignment Group

	Control Group	Experimental Group	Section 8 Group	All Groups
Household characteristics				
Number of family members	3.7	3.7	3.7	3.7
Female head of household	92.1%	91.9%	93.6%	92.4%
Employment status				
Full-time	14.2%	14.1%	15.2%	14.5%
Part-time	9.4%	12.1%	11.0%	10.9%
Received welfare benefits				
Social Security or disability benefits	8.4%	9.0%	7.3%	8.4%
AFDC or TANF	76.3%	76.3%	73.6%	75.6%
Takes more than 30 minutes to get to...				
Grocery store	21.4%	21.5%	22.2%	21.7%
Doctor	45.0%	42.7%	43.6%	43.7%
Household income (2009 dollars)				
Average income	$12,439	$12,866	$12,788	$12,709
Median income	$10,353	$10,629	$10,892	$10,614
Adults interviewed at 10 to 15 years				
Age at baseline	32.8	32.9	33.1	32.9
Number interviewed	1,139	1,456	678	3,273

AFDC = Aid to Families with Dependent Children. TANF = Temporary Assistance for Needy Families.

Notes: Percentages are percent distributions and may not sum to 100 because of rounding and missing information. Data are weighted using the survey weights.

Source: Baseline surveys for adult respondents to the long-term surveys

MTO Effects on Adult Mental Health, 10 to 15 Years After Random Assignment

Outcome	Control Mean	Experimental vs. Control		Section 8 vs. Control		Respondents (N)
		ITT	TOT	ITT	TOT	
Major depression with hierarchy, lifetime	0.203	−0.032~ (0.017)	−0.066~ (0.035)	−0.048* (0.021)	−0.077* (0.034)	3,269
GAD with hierarchy, lifetime	0.065	−0.003 (0.010)	−0.005 (0.021)	−0.020~ (0.011)	−0.033~ (0.017)	3,273
PTSD, lifetime	0.219	−0.012 (0.018)	−0.024 (0.037)	0.004 (0.024)	0.006 (0.038)	3,269
Psychological distress index (K6) z-score, past month (higher score indicates greater distress)	0.000	−0.107* (0.042)	−0.221* (0.087)	−0.097~ (0.056)	−0.156~ (0.091)	3,273
Dependence on drugs or alcohol, past month	0.055	0.029* (0.011)	0.060* (0.022)	0.015 (0.015)	0.024 (0.023)	3,269

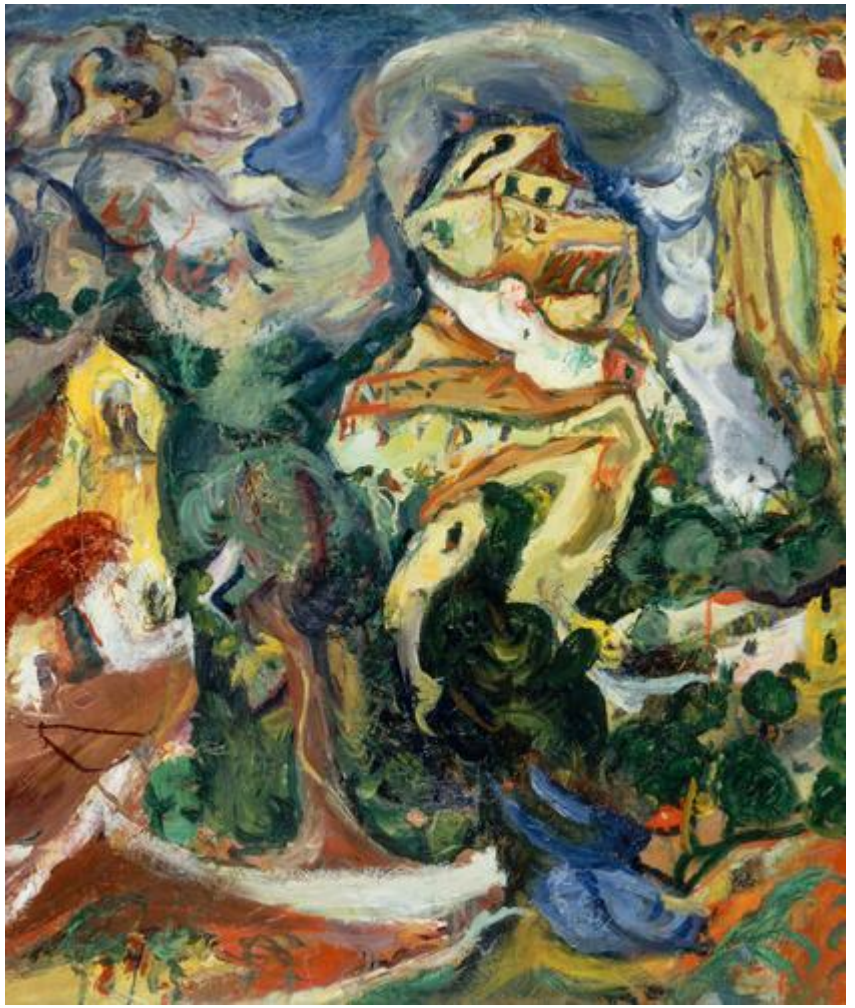
GAD = generalized anxiety disorder. ITT = intention to treat. MTO = Moving to Opportunity. PTSD = post-traumatic stress disorder. TOT = treatment on the treated.

** = $p < .05$. ~ = $p < .10$.*

Sanbonmatsu et al, Cityskape, 2012

Chaim Soutine
1893-1943

Les maisons



Le village

Merci de votre attention

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