

Santé et Vélo: Arguments en faveur d'une pensée systemique en politique urbaine

Petit dejeuner decideurs-chercheurs
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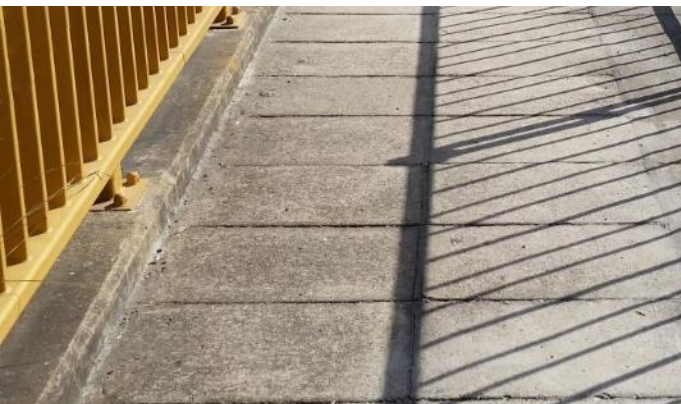
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BNFC CKS Journals and databases

Conditions > Obesity

FRANCE STRATÉGIE
ÉVALUER. ANTICIPER. DÉBATTRE. PROPOSER.


NATIONAL Physical Act



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RAPPORT

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people

s_other

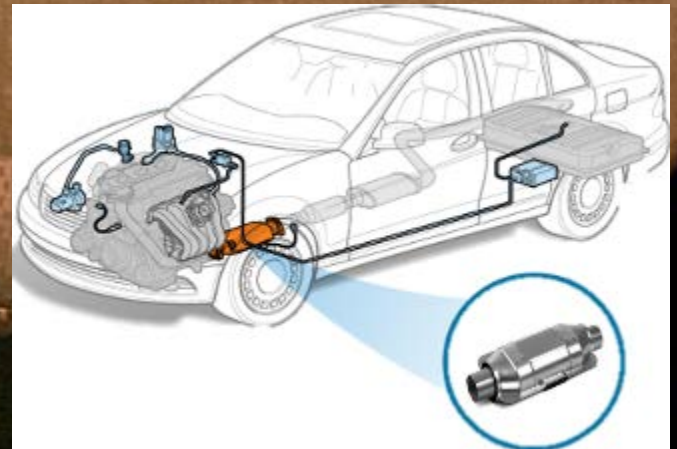
amme

Activité physique et pratique sportive pour toutes et tous



JOURNEY TO A HEALTHIER YOU

Pollution from exhausts... you cannot see, feel, touch or smell it. However it can damage or even kill you. Only airbubbl cleans ALL the deadly gases and particles that enter your vehicle.

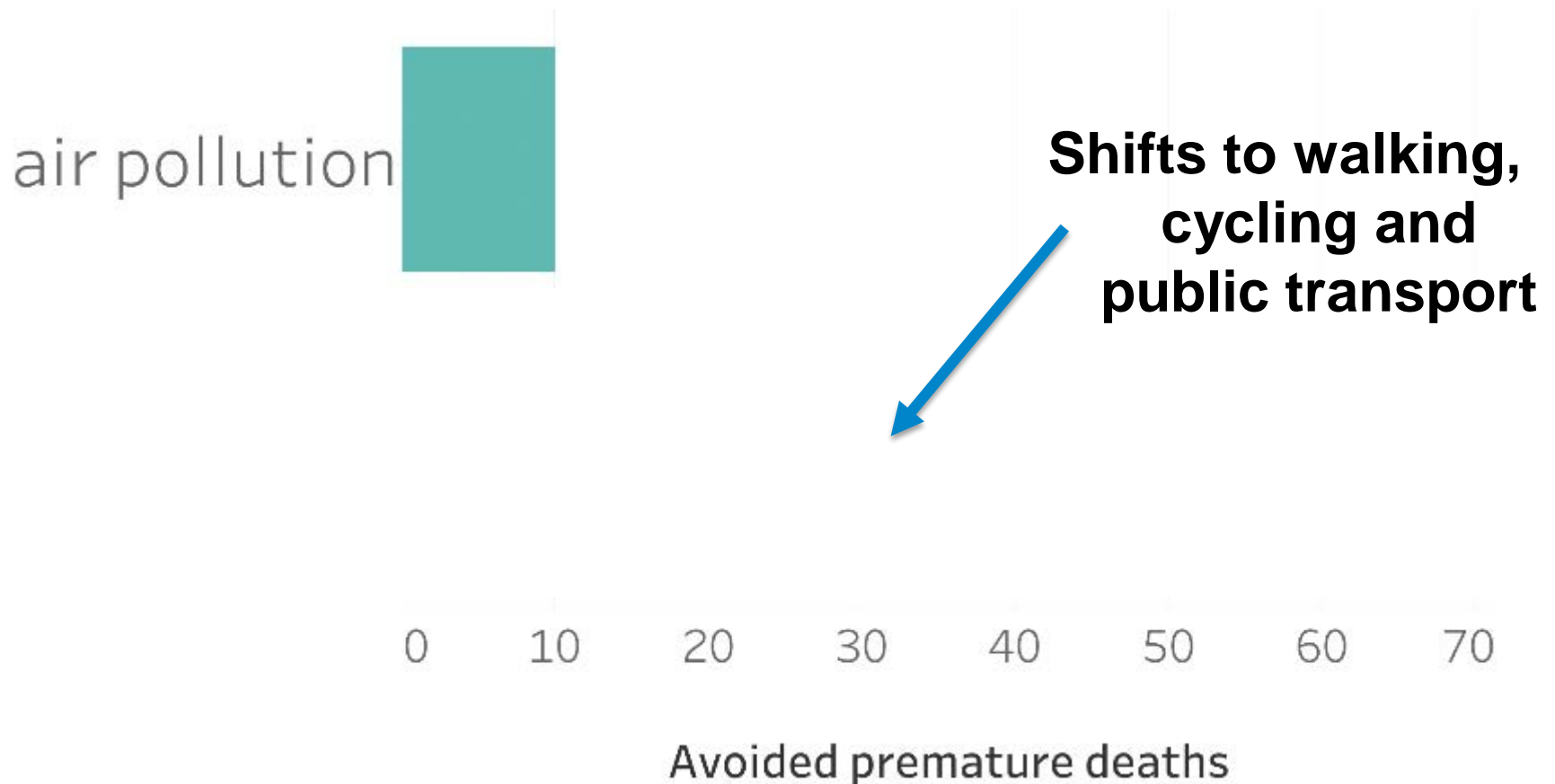
Interior view of a car showing the airbubbl air filter installed in the dashboard area. The filter is a cylindrical unit with a mesh front and a black back, mounted in a custom-fitted housing.





Evidence base: making the case for holistic thinking

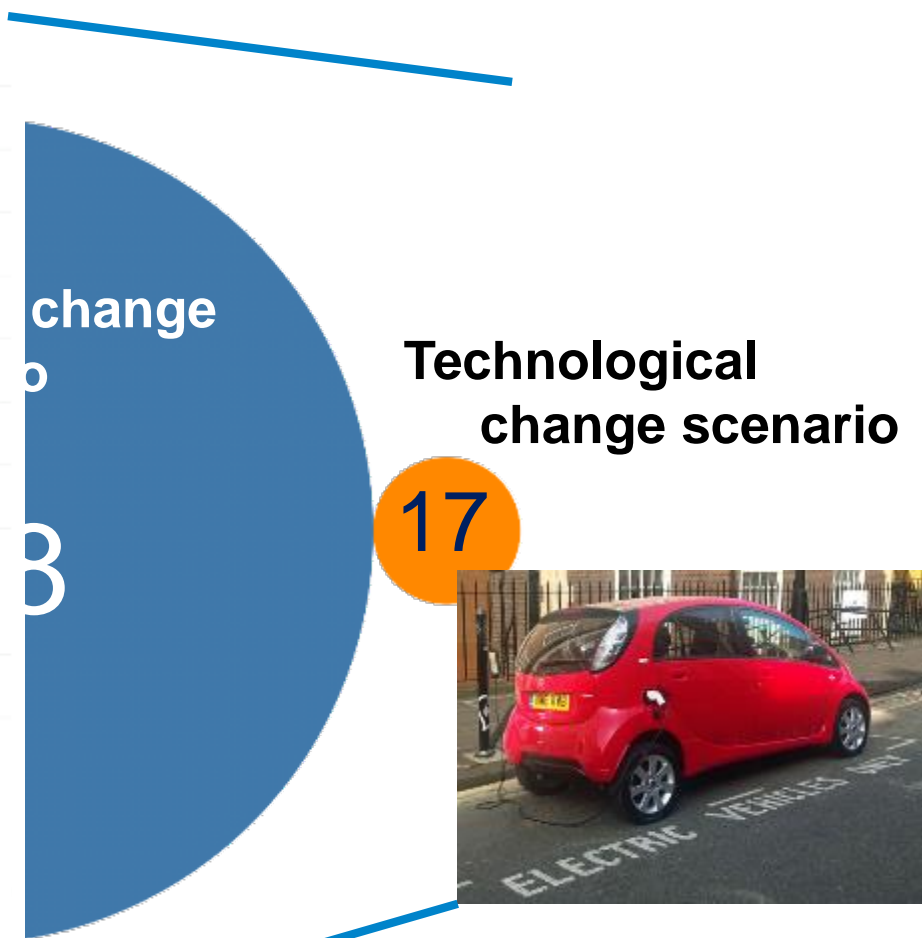
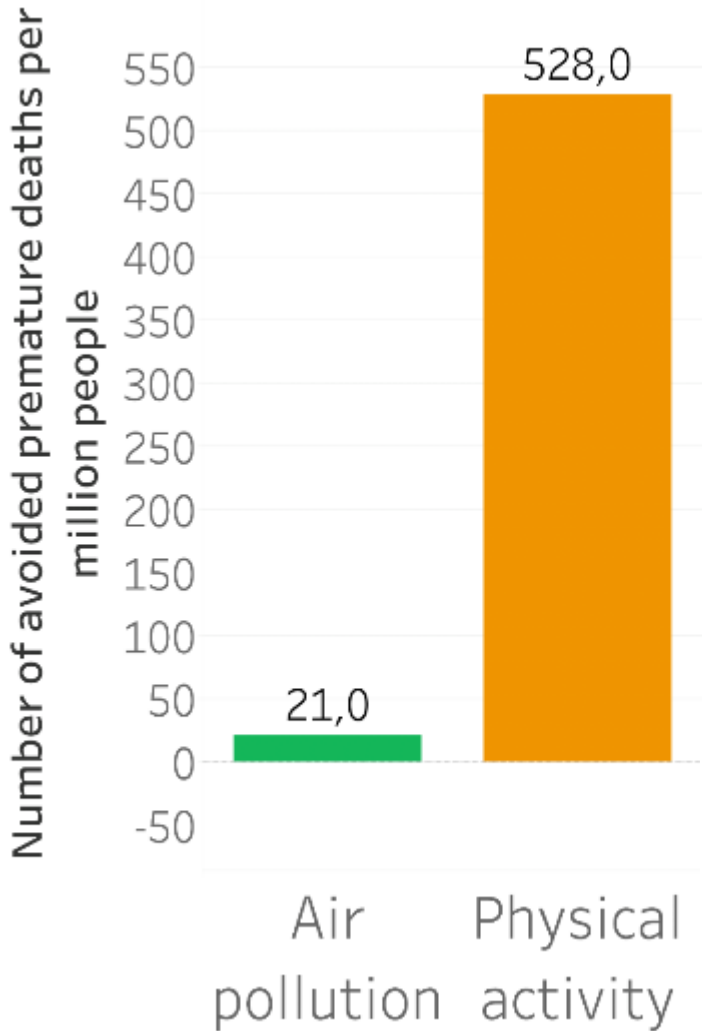
Benefits of reducing 40% of car travel, Barcelona, Spain, health impact modeling

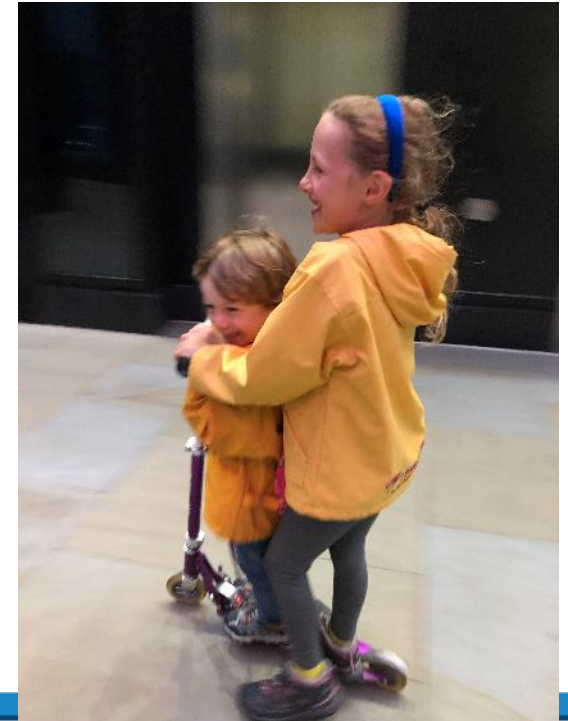
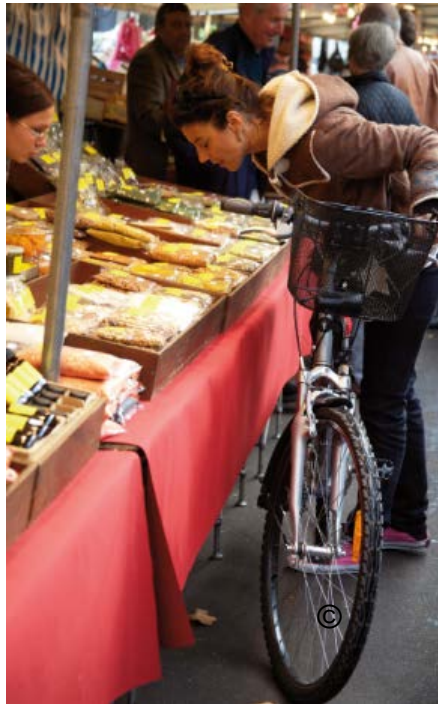


Behavioural vs Technological approaches in London






Behavioural vs Technological approaches in London







Transport mode use (days/month)	Self-perceived health ^a OR (CI 95%)	Perceived stress ^b coef (CI 95%)
Car 	1.00 (0.99, 1.02)	-0.003 (-0.019, 0.013)
Motorbike	1.02 (0.99, 1.04)	0.006 (-0.018, 0.031)
Public transport	0.99 (0.98, 1.01)	-0.002 (-0.016, 0.011)
E-bike	0.99 (0.96, 1.02)	-0.025 (-0.052, 0.003)
Bicycle 	1.07 (1.05, 1.08)**	-0.016 (-0.028, -0.004)*
Walking 	1.02 (1.00, 1.03)*	-0.005 (-0.019, 0.010)

Avila-Palencia et al. (2018) The effects of transport mode use on self-perceived health, mental health, and social contact measures: A cross-sectional and longitudinal study. Environment International 120

Regression models assessing associations between the different transport modes and the health outcomes, adjusted for all the potential confounders. ^aMixed-effects logistic regression models. ^bLinear regression models. ^cLogistic regression models. All models were adjusted by age, sex, education, nationality, employment status, and city. Sample sizes: Self-perceived health (n=8218); Perceived stress (n=3241); Mental Health (n=3243); Vitality (n=3243); Loneliness (n=3247); Contact with friends/family (n=3247). *p-values<0.05, **p-value<0.001.



Avila-Palencia et al. (2018) The effects of transport mode use on self-perceived health, mental health, and social contact measures: A cross-sectional and longitudinal study. Environment International 120




Transport mode use (days/month)	Mental Health ^b coef (CI 95%)	Vitality ^b coef (CI 95%)
Car 	0.03 (-0.05, 0.12)	-0.02 (-0.12, 0.07)
Motorbike	-0.06 (-0.19, 0.07)	-0.09 (-0.24, 0.06)
Bicycle 	0.11 (0.05, 0.18)**	0.14 (0.07, 0.22)**
Walking 	0.05 (-0.03, 0.13)	0.14 (0.05, 0.23)*

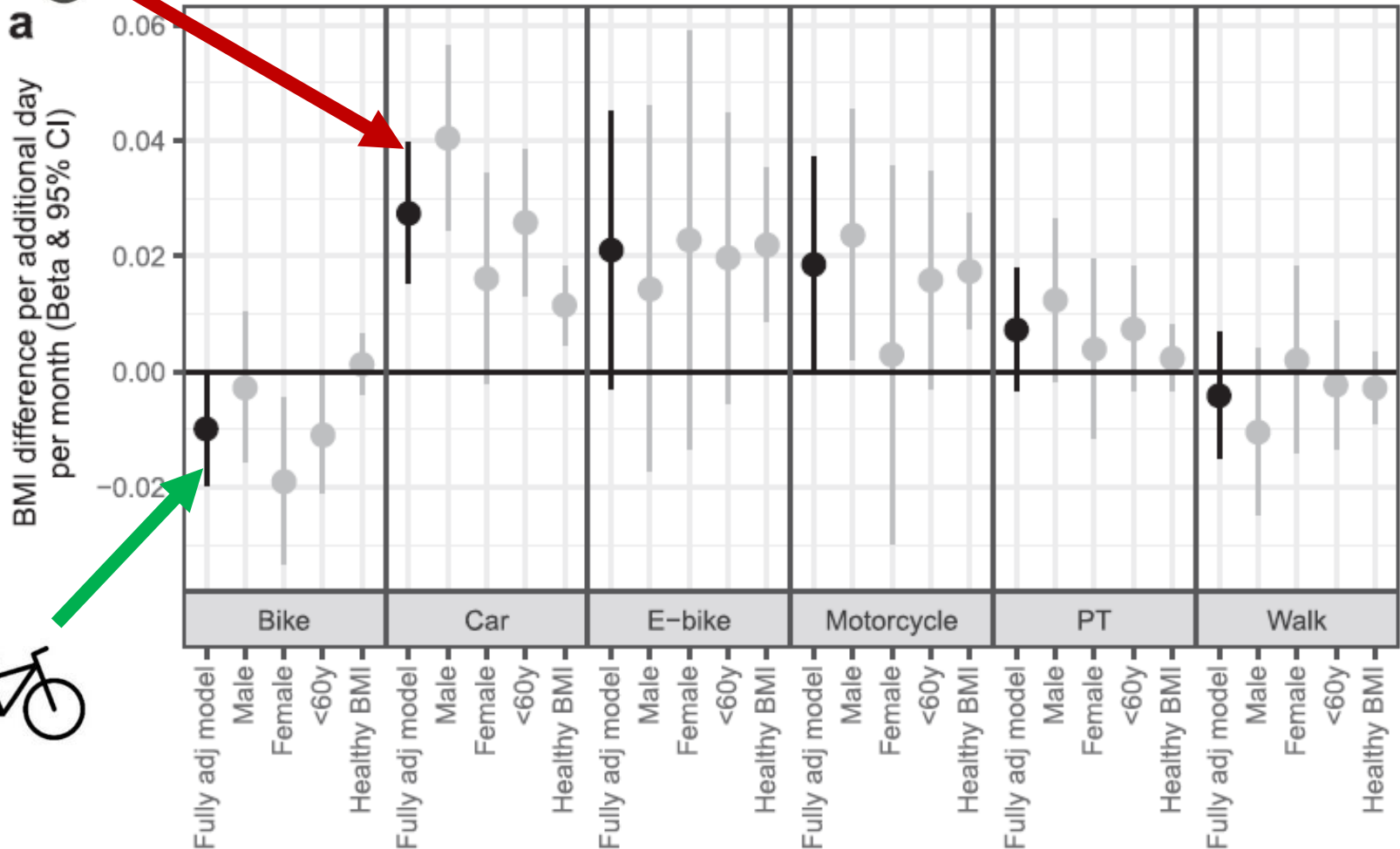
Table 3. Regression models assessing associations between the different transport modes and the health outcomes, adjusted for all the potential confounders

^aMixed-effects logistic regression models. ^bLinear regression models. ^cLogistic regression models. All models were adjusted by age, sex, education, nationality, employment status, and city. Sample sizes: Self-perceived health (n=8218); Perceived stress (n=3241); Mental Health (n=3243); Vitality (n=3243); Loneliness (n=3247); Contact with friends/family (n=3247). *p-values<0.05, **p-value<0.001.



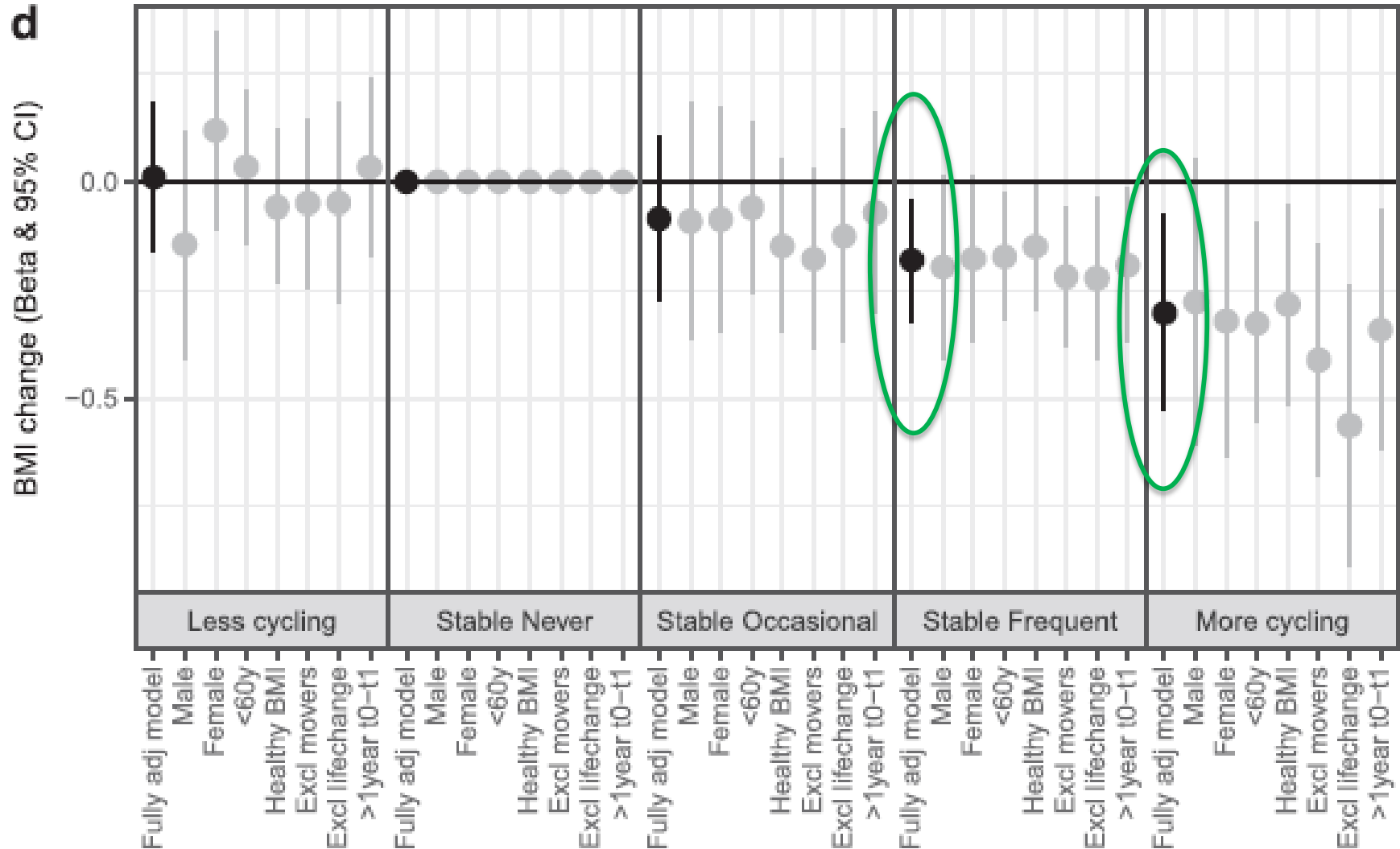
Dons et al. (2018) Transport mode choice and body mass index: Cross-sectional and longitudinal evidence from a European-wide study. *Environment International* 119

BMI difference per additional day of travel per month by mode





BMI and travel mode longitudinal analysis: Impact of change in cycling





In Summary: With holistic thinking we identify that urban design strategies can provide additional benefits compared to single-purpose strategies such as air pollution technological solution.

Impacts can be modelled to help make the case.

Co-benefits?

- Air pollution
- Climate change
- Greenspace
- Biodiversity
- Noise
- Physical activity
- Traffic injuries
- Diet
- Air flows
- Inequalities
- Etc

Trade-offs?

- Cooling agents
- Air pollution inhalation
- Traffic injuries
- Pollen
- Air flows
- Inequalities
- Etc.

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Integrating Human Health into Urban and Transport Planning

A Framework

Editors: Nieuwenhuijsen, Mark, Khries, Haneen (Eds.)

Mark Nieuwenhuijsen
Haneen Khries, Editors

Integrating Human Health into Urban and Transport Planning

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Chapter 31 Barriers and Enablers of Integrating Health Evidence into Transport and Urban Planning and Decision Making



Rosie Riley and Audrey de Nazelle

- Evidence → holistic and co-created
- Institutional and legislative changes → collaborative and holistic thinking
- Political will → public and stakeholder engagement, create alliances



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