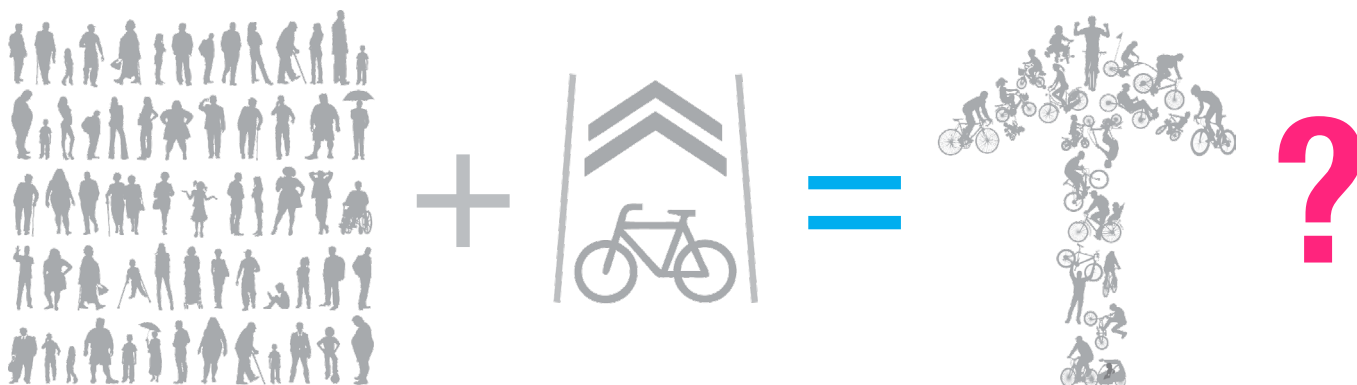


Cycle lanes? New paths & trails? Refurbished skate parks?

Do we know *what works* to increase physical activity?



Knowing what city improvements work for society or large groups is tricky. **There are many factors at play when establishing if one thing causes another**, for whom, to what extent and at what cost. When identifying the best solutions, **robust natural experiments usually present the strongest achievable findings**. This is based on practical research challenges in this area, as well as how information has been collated and analysed.

We undertook a thorough **review of the 12 strongest natural experiments from 3 exemplar reviews** published in the past 5 years (72 studies in all), covering a range of built environment interventions and their impact on physical activity (PA). This involved the adoption and adaption of a tool created by the internationally respected and independent Cochrane group. Within the 12 studies, 15 outcomes were assessed and **3 (20%) were found, overall, to be seriously biased** and **12 (80%) critically biased**.

Most city interventions are very expensive and difficult to correct. **We outline eight recommendations to improve natural experiments** in this field. Rather than delaying action, it is our hope that enhanced research may better inform a growing policy interest, into the future.

Summary of overall bias for 15 PA outcomes (from 12 strongest studies)

