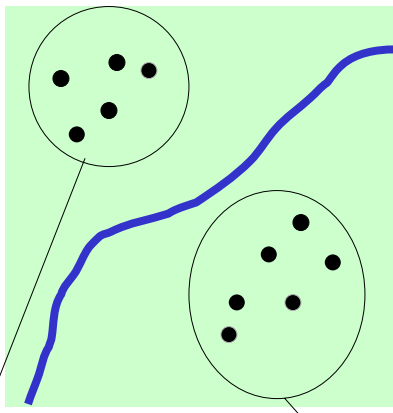


Here we have a set of individuals living in two neighbourhoods in a city on opposite sides of a river.

The health outcomes experienced by individuals living South of the river are more similar to one another than to those of individuals living in distant neighbourhoods.



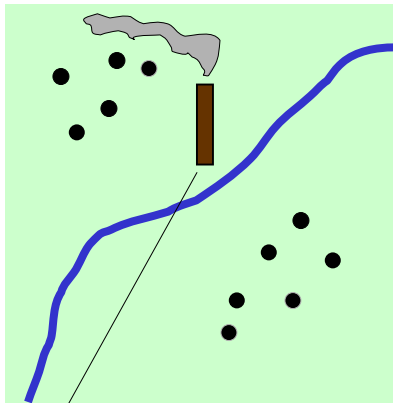
One reason underlying the observed similarity in health outcomes may simply be that individuals in the same neighbourhood tend to be more similar to one another than to those in other neighbourhoods in terms of predisposing factors such as age and ethnicity. This is known as the **composition effect**.

Student Area

Pete = 25 years old
 Alison = 29 years old
 Dave = 22 years old

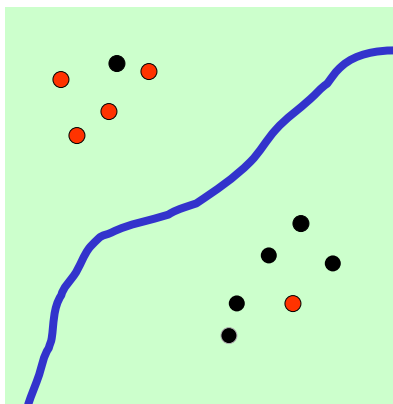
Retirement Area

Jack = 72 years old
 Agnes = 65 years old
 George = 70 years old



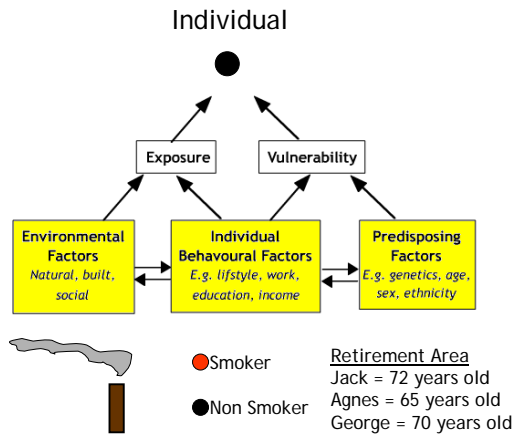
Smoke from industry

An alternative explanation may be that individuals living in the same neighbourhood are exposed to similar local factors that have impacts on their health outcomes, for example proximity to an environmental hazard or service provision. This is known as the **context effect**.



- Smoker
- Non Smoker

A third alternative is that individuals who live in proximity are more likely to engage in the same types of behaviour that may have influences on health outcomes - for example smoking behaviour among adolescents which are affected by peer pressure. This is known as a **collective effect**.



The reality is that all three elements may be present to varying extents in relation to specific health outcomes. We should thus be concerned to include relevant environmental, behavioural and predisposing factors and to recognise the inherent complexity of composition/context/collective effects.