

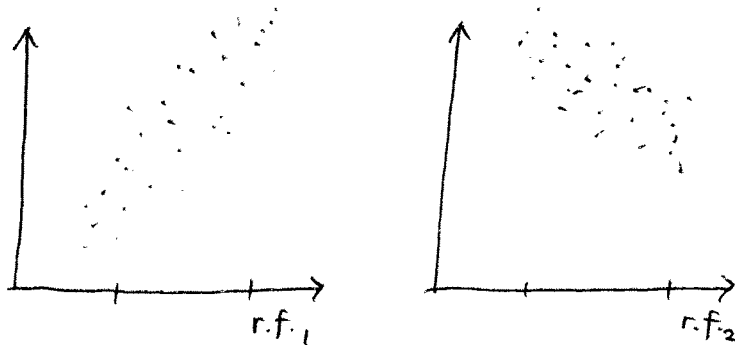
Relevant risk: Relative or Absolute?

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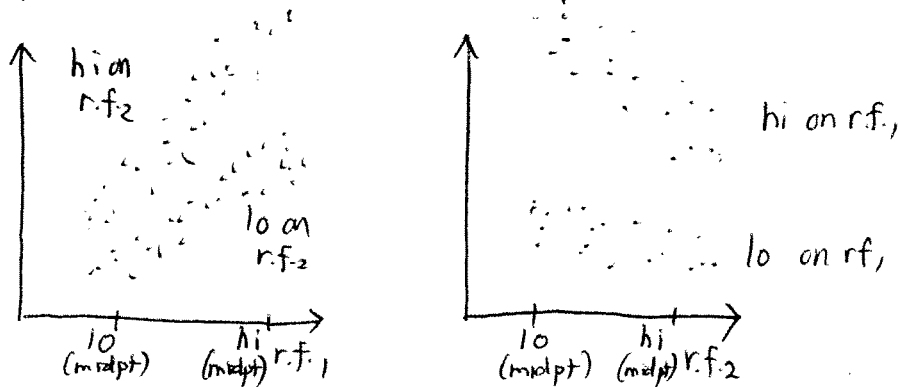
and exaggerated

Simplified scenario: Data on incidence in relation to two risk factors

Step 1. Plot incidence versus each risk factor separately (because it is hard to plot 3D graphs on 2D paper)



2. Control for the other r.f., which is the same as separating the data into slices. (For simplicity, have two slices only)



3. Eyeball relative risk using mid-points all data: $rr=3$ for hi vs lo on r.f.1, $rr=2$ for hi vs lo on r.f.2

| | | | | |
|-------|-------------|--------------|-------------|--------------|
| | | ↑ | | |
| slice | hi on r.f.2 | $rr=3$ | hi on r.f.1 | $rr=2$ |
| | lo on r.f.2 | $rr=3$ | lo on r.f.1 | $rr=2$ |
| | | ┌───┐ | | ┌───┐ |
| | | for hi vs lo | | for hi vs lo |
| | | on r.f.1 | | on r.f.2 |

4. Conclusion: Controlling for the other r.f. left r.r. unchanged (a.k.a. "had no effect")

but a) reducing each r.f. in the general population (all data) has a marked effect

b) in this case, the effect of reducing r.f.1 is more than the effect of reducing r.f.2

5. r.f.1 corresponds to the conventional r.f.s for CHD; r.f.2 corresponds to SES.