## SISMID 2022 / Causal Module / Dependence <br> Breakout Questions

1. Consider the following dataset obtained as a random sample from a population.

|  | $X=0$ | $X=1$ |
| :---: | :---: | :---: |
| $Y=0$ | 200 | 420 |
| $Y=1$ | 50 | 280 |

(a) Using the observed proportions for $X=x$ as an estimate for $P(Y=1 \mid X=x)$, draw a L'Abbé plot (aka unit square) and indicate the point corresponding to the Population.
(b) Compute the Risk Difference and add the Risk Difference line for the Population to the Plot.
(c) Compute the Relative Risk and add the Relative Risk line for the Population to the Plot.
(d) Calculate the Odds Ratio and sketch the Odds Ratio Curve for the Population on the Plot.

