

Conceptual models of informal refugees' camps to inform management strategies to prevent the spread of COVID19 in NW Syria

CROWDFIGHTCOVID19 & PAX SYRIANA FOUNDATION

WORKING DOCUMENT

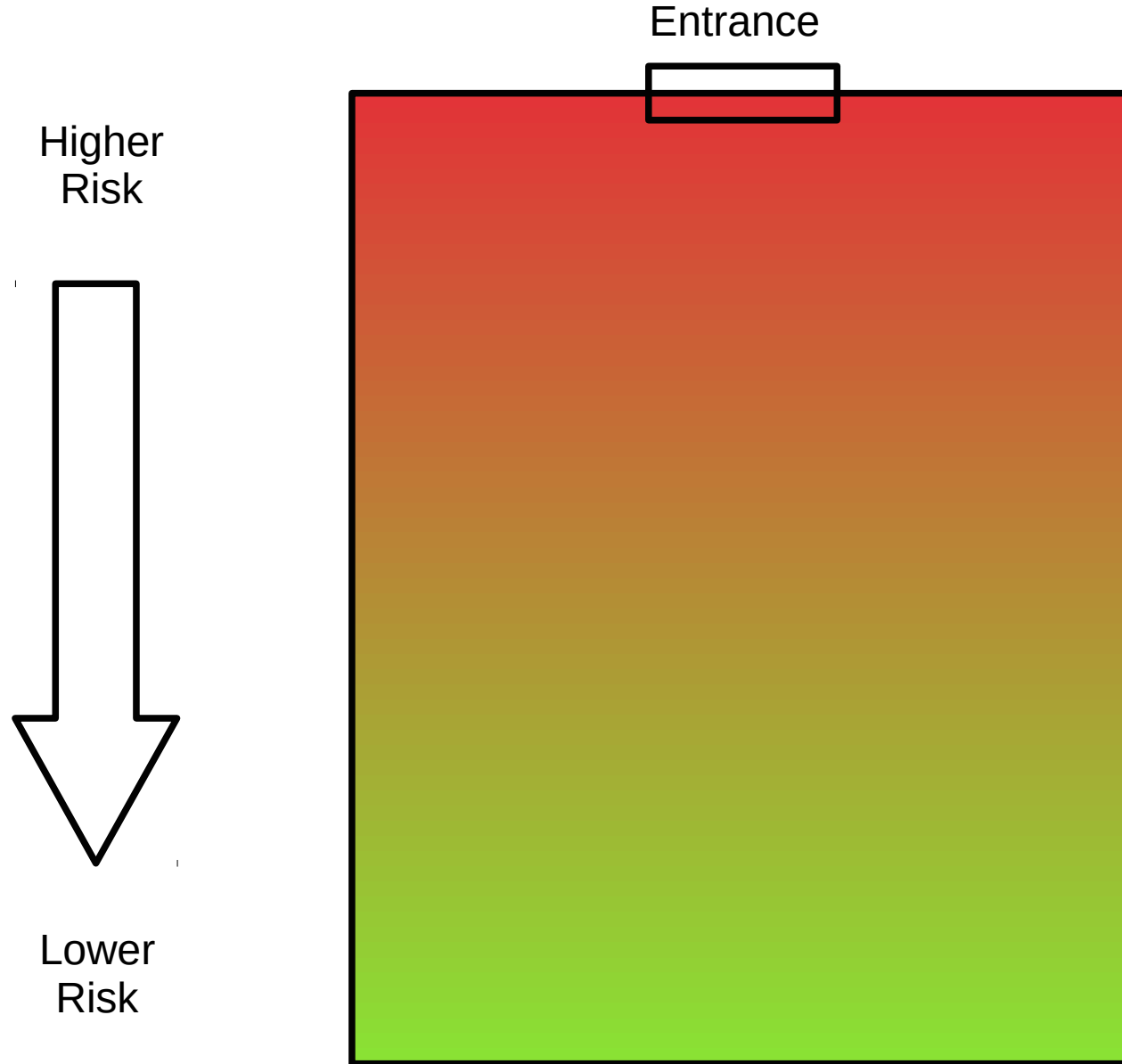
MAY 19TH, 2020

Outlook

- The presentation shows a progression of compartment models with an increasing degree of complexity.
- The rational is to minimize the transmission rates in general and between vulnerable and infected population in particular.
- Compartments and corridors in which selected populations can move are implemented aiming to reduce transmission risks.
- The model implies maximally segregating in space infected and highly vulnerable populations. However, since families of low (high) vulnerable populations may have family members segregated in a compartment far from family kernel, safe corridors should be implemented to attend their relatives.
- This leads to a “Yin-Yang “model in which segregation is combined with minimal fluxes of people dynamically moving from one segregated area to the other.

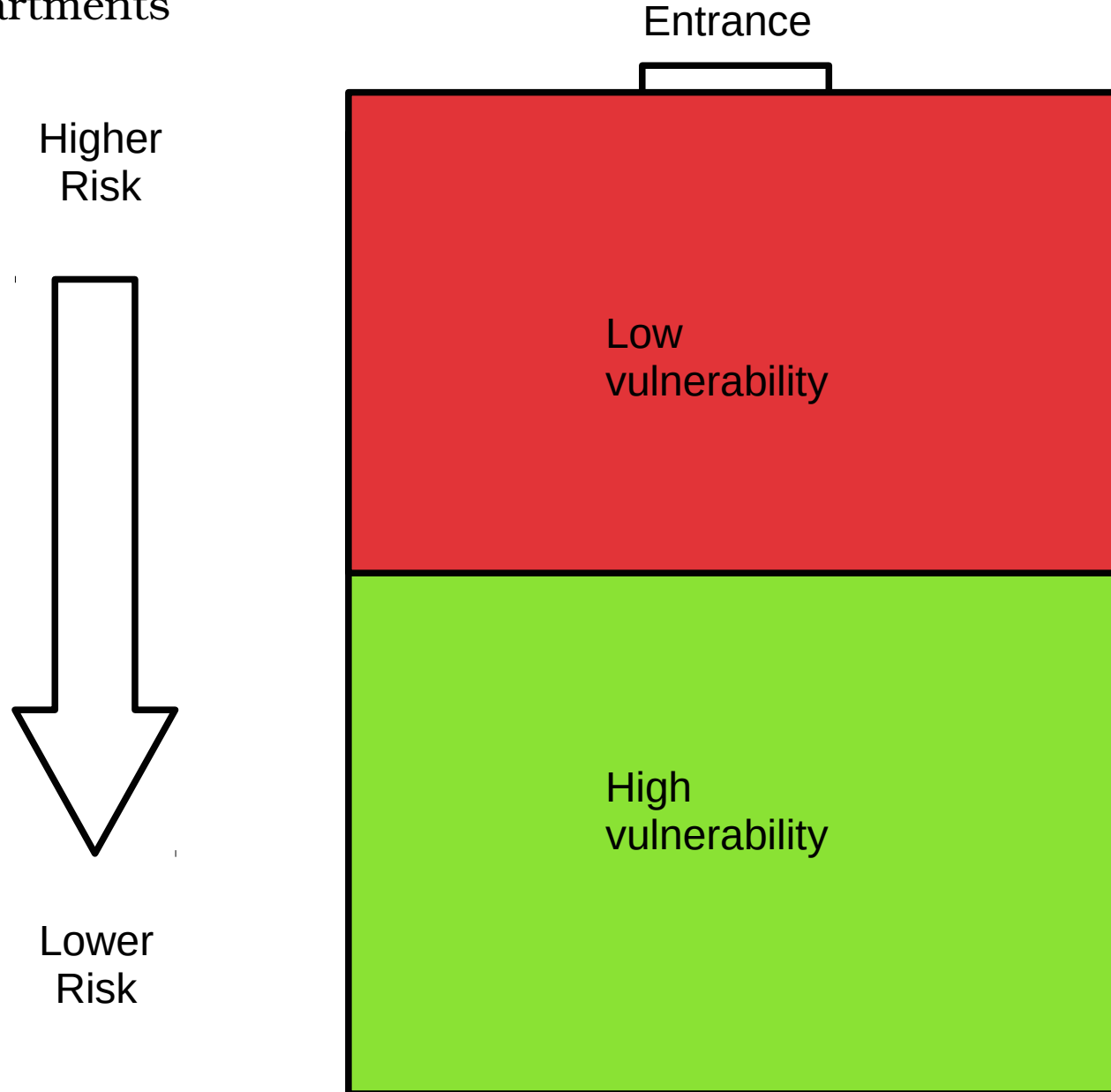
MODEL 1.

Segregation: Rearrange communities in the camp following vulnerability criteria



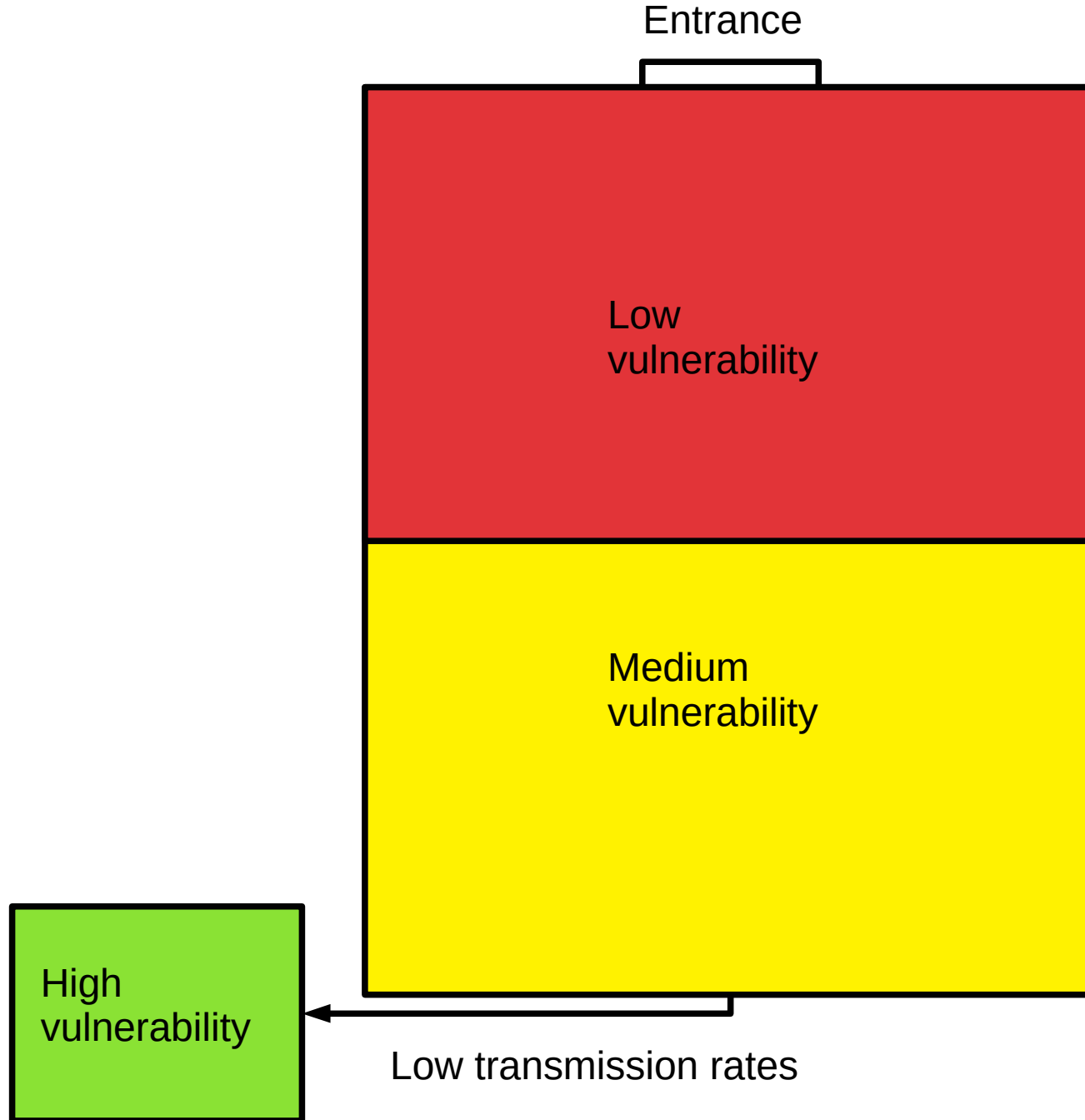
MODEL 1.

Segregation: Simplified models consider the creation of compartments with low transmission rates between compartments and a well mixed population within compartments



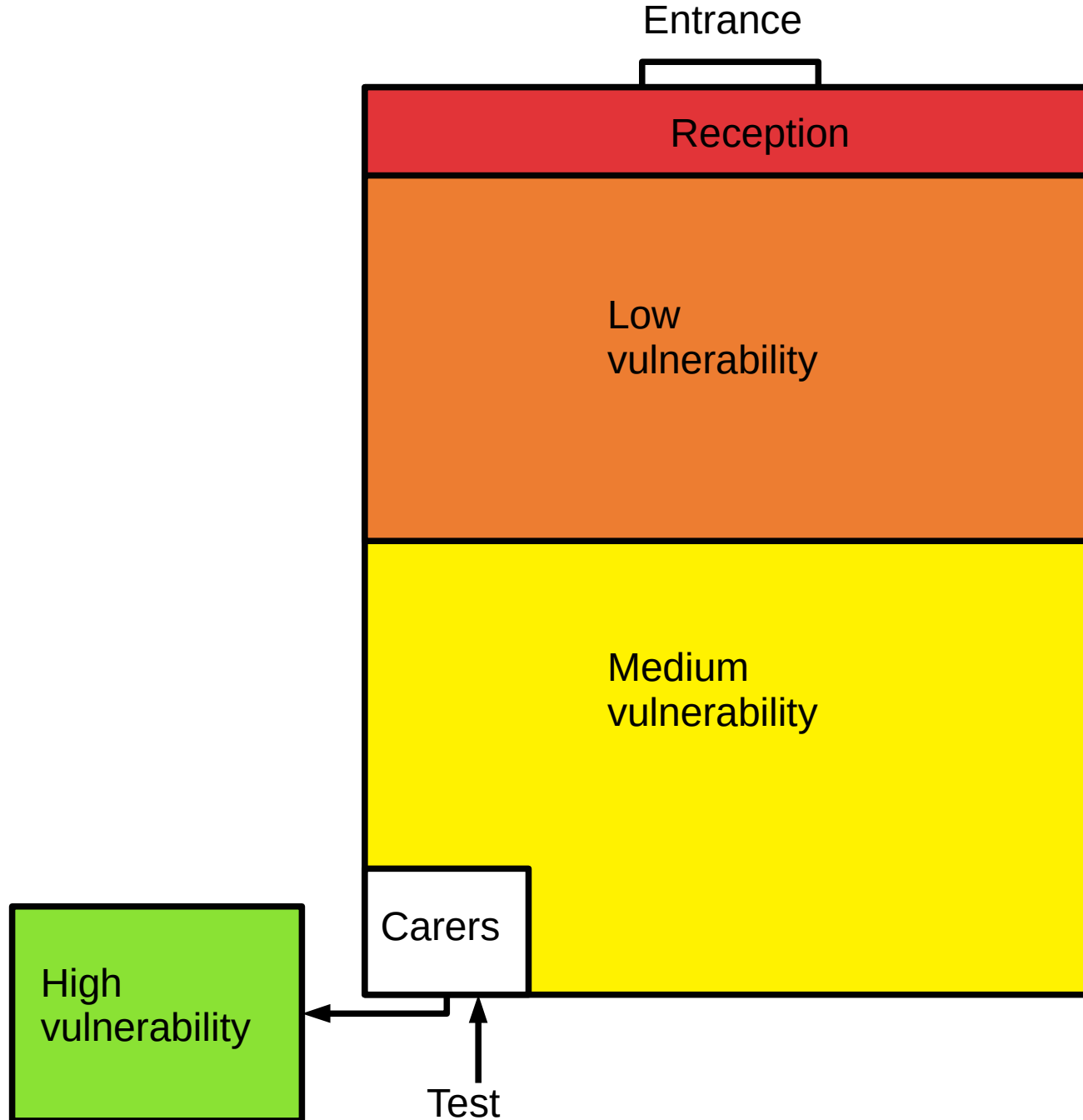
MODEL 2.0

Shielding strategy: Take advantage of additional infrastructures to shield high vulnerable population.



MODEL 2.1

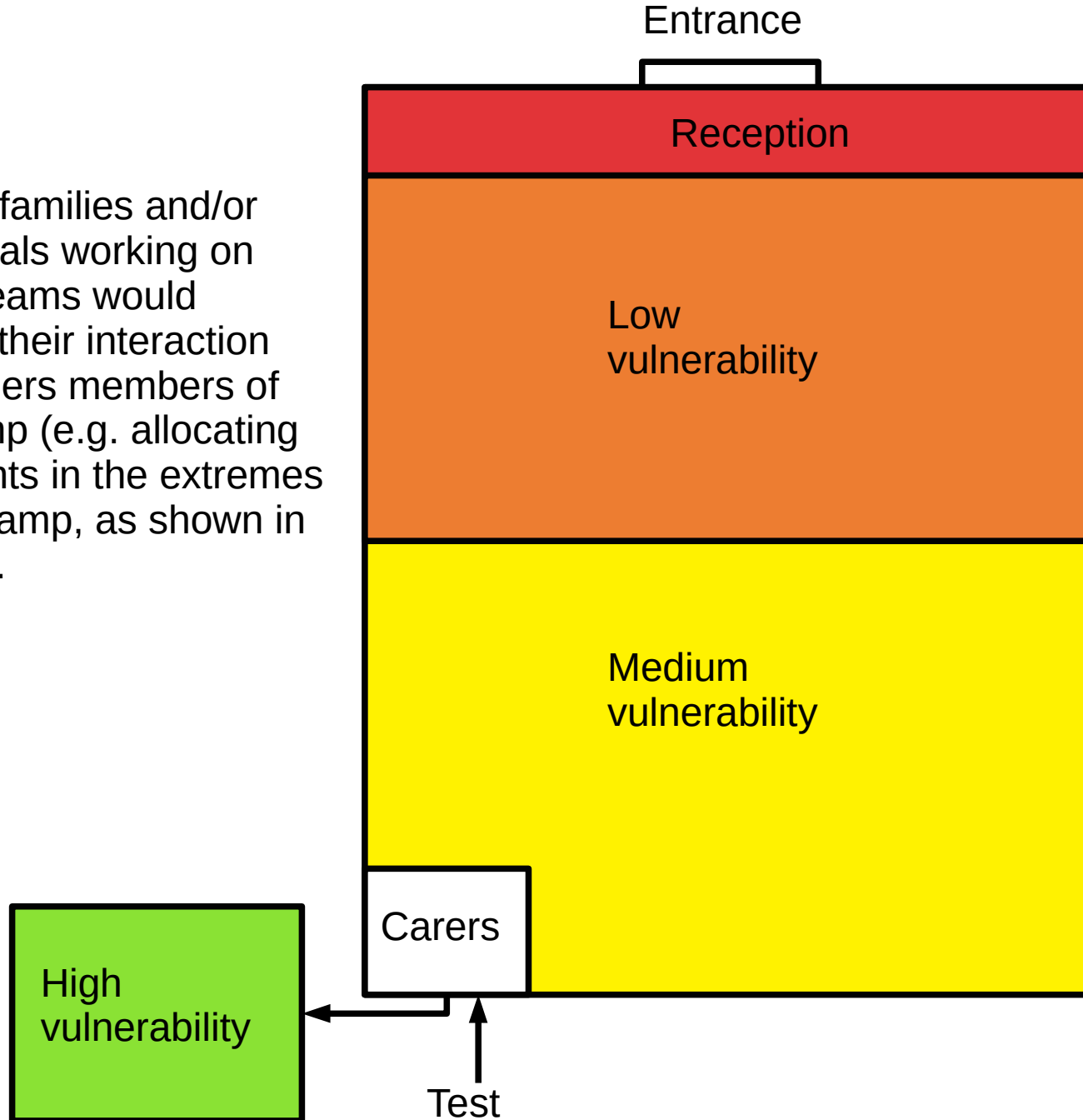
Clean areas. Adding dedicated teams to work on the reception of goods and care of shielded members. Test procedures (e.g. temperature) for carers.



MODEL 2.1

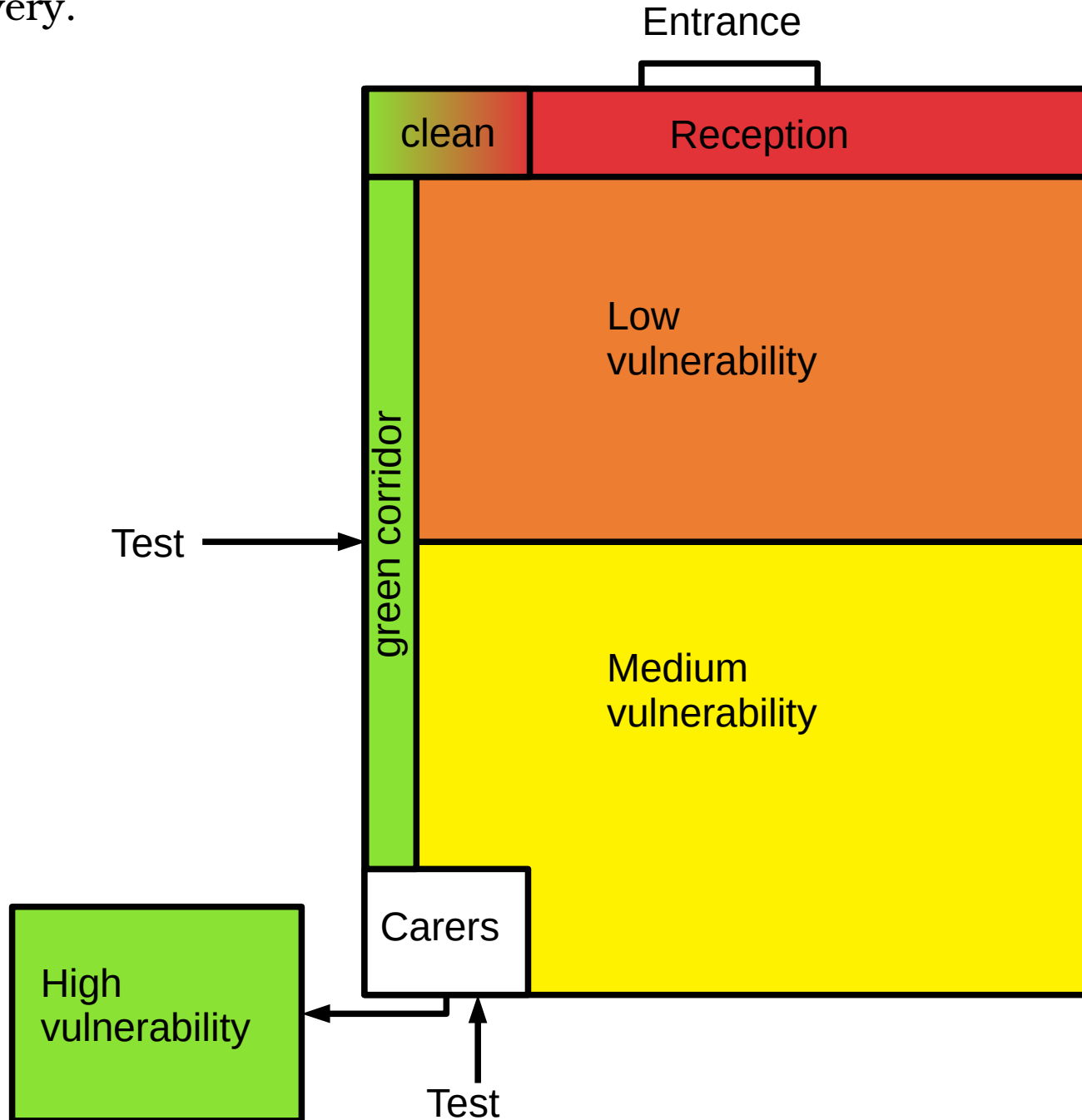
Clean areas. Adding dedicated teams to work on the reception of goods and care of shielded members. Test procedures (e.g. temperature) for carers.

Ideally, families and/or individuals working on these teams would reduce their interaction with others members of the camp (e.g. allocating their tents in the extremes of the camp, as shown in the plot.



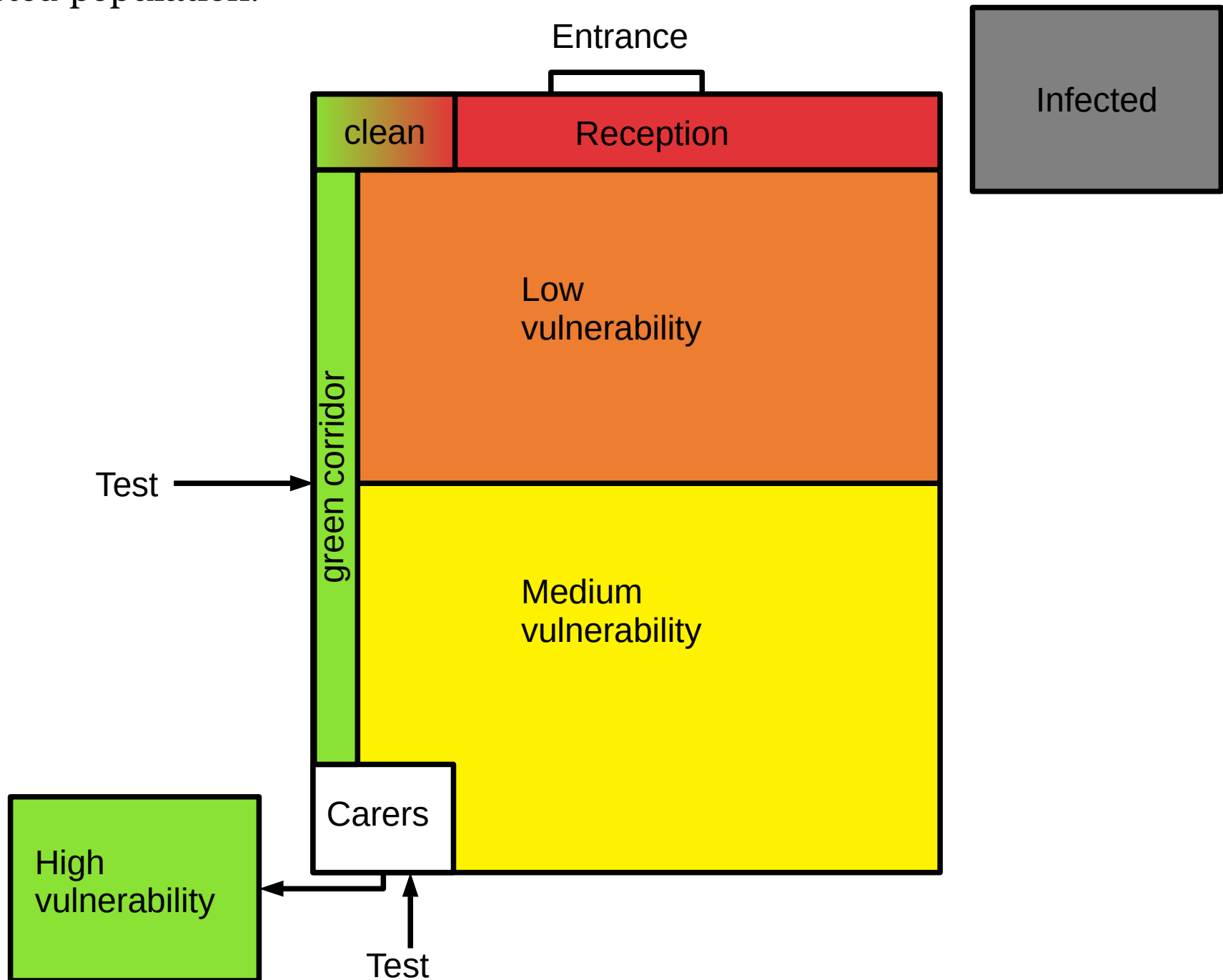
MODEL 2.2

Clean corridors. Establishing a clean area for goods with destination the shielded area, delivered via a clean corridor. Test procedures for persons involved in delivery.



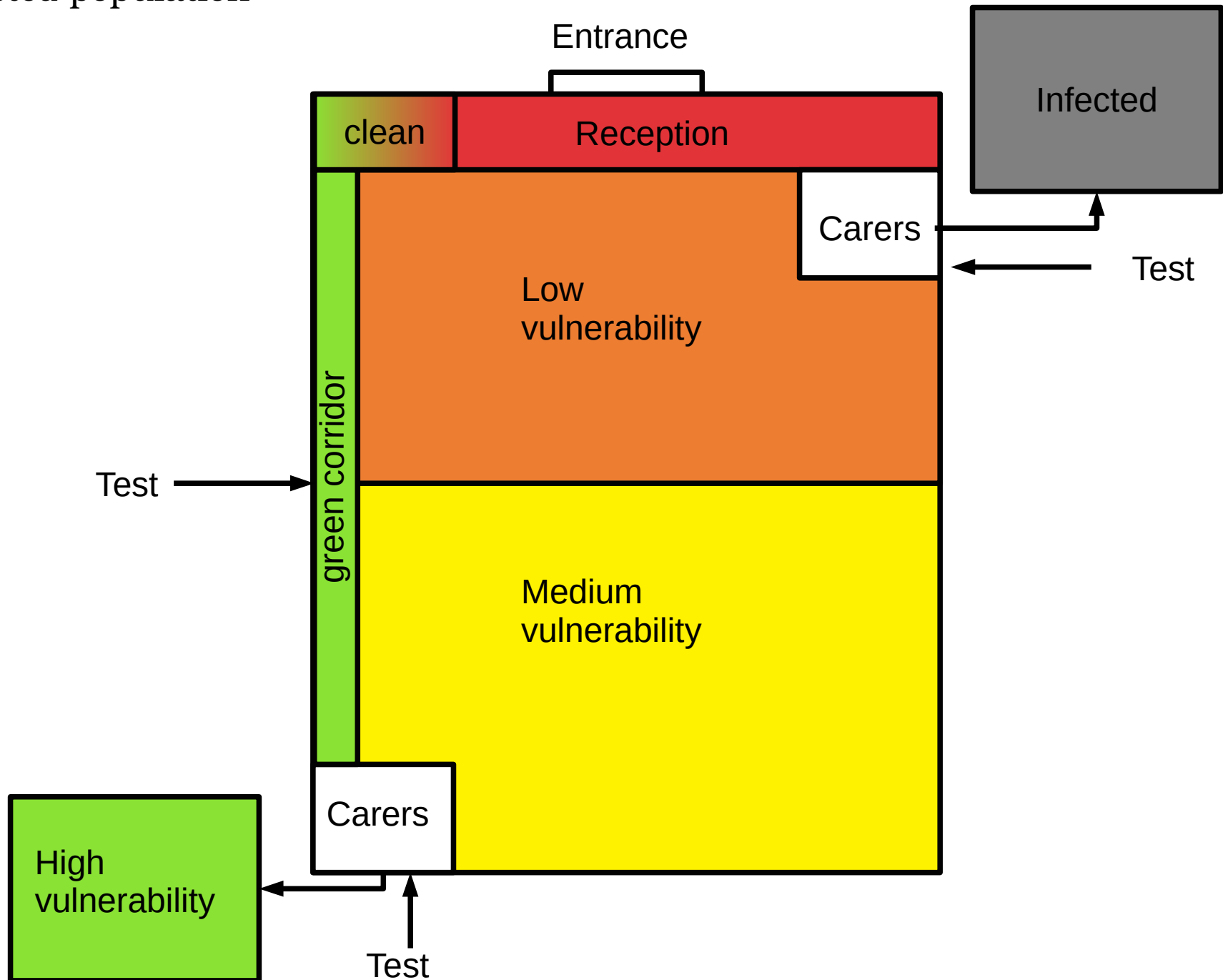
MODEL 3.0 (Yin-Yang model)

Infected compartment. Taking advantage of additional infrastructures to isolate infected population.



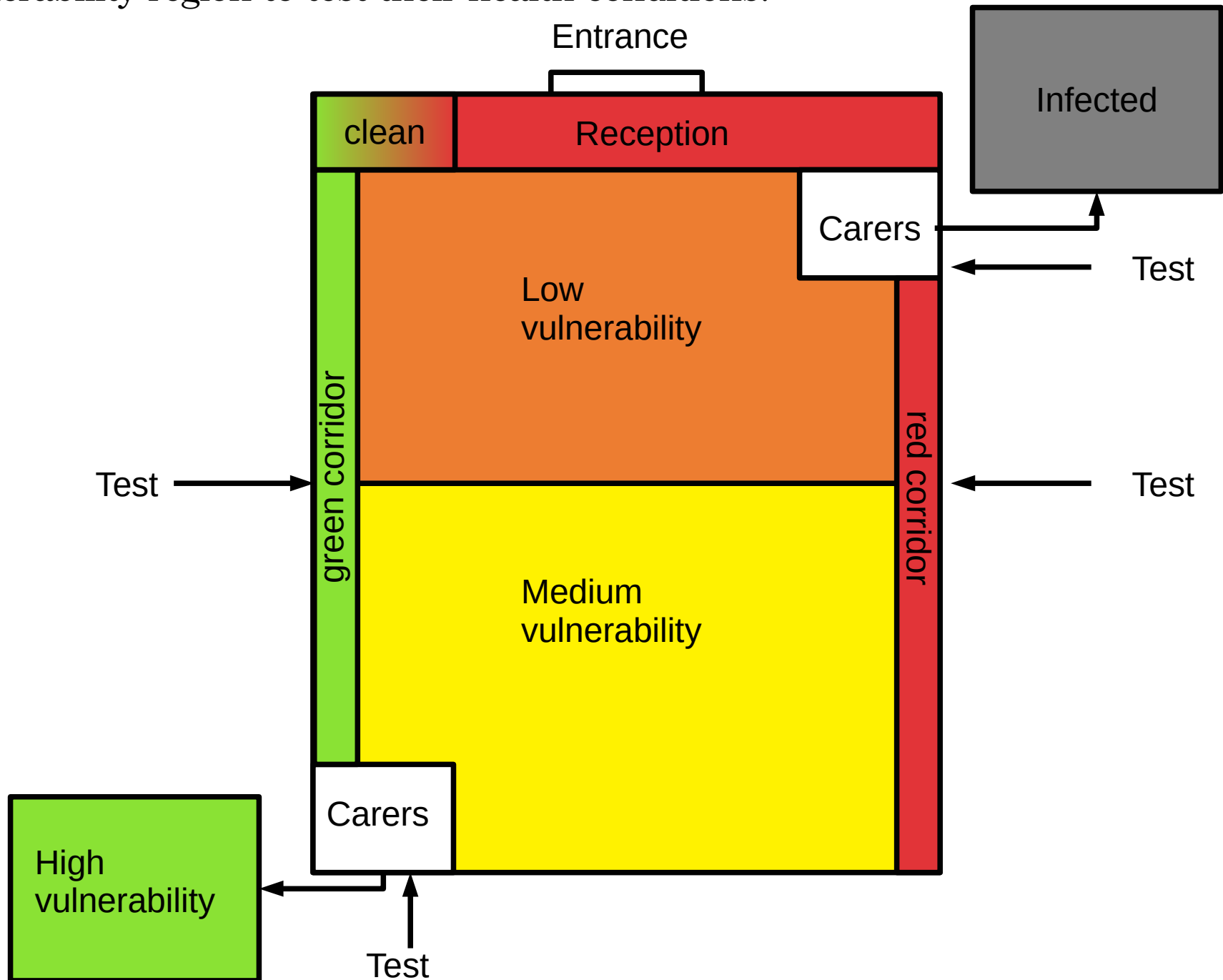
MODEL 3.1 (Yin-Yang model)

Carers compartment. Establishing a dedicated area for those taking care of infected population



MODEL 3.2 (Yin-Yang model)

Clean corridor. Establishing a corridor for selected carers coming from the medium vulnerability region to test their health conditions.



MODEL 3.2 (Yin-Yang model)

Clean corridor. Establishing a corridor for selected carers coming from the medium vulnerability region to test their health conditions.

