1 Model

We consider $i = 1, ..., I$ patients and $j = 1, ..., J$ doctors.

Patients are characterized by the tuple $(\kappa_i, \gamma_i) \in (\mathbb{R}_0^+)^2$, their "medical need" and "taste for licenses" respectively, following the ex-ante cumulative distributions $F(k)$ and $G(\gamma)$.

Doctors are described by their "service quality" $V_j \in \mathbb{R}_0^+$, following the *ex-post*, empirical distribution $H(V)$.

A patient i visits a doctor for treatment and may be granted a medical license. As such, their utility function –implicitly dependent on his (κ_i, γ_i) tuple– is defined piece-wise as follows:

$$U_i(V_j) = \begin{cases} \gamma_i + V_j \kappa_i - \tau & \text{if he's granted a license,} \\ V_j \kappa_i - \tau & \text{if he only visits a doctor,} \\ 0 & \text{if he doesn't see a doctor,} \end{cases}$$

As we see, there's three components to patient utility: a complimentary interaction between the patient's medical need κ_i and the physician's service quality" V_j, his taste for licenses γ_i in the case he's granted one, and τ, the cost of visit, normalized across doctors.