ANNEX 5

Functional forms of the models used to estimate the impact of interventions
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Annex 5. Functional forms of the models used to estimate the impact of interventions.

1. Knowledge indices:
   1.1. Economic benefits

\[ Y_{ipe} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j \]

Where:
- \( Y_{ipe} \) is the financial benefit rate of individual \( i \)
- \( T_i \) is the treatment received by individual \( i \)
- \( X_i \) is represents the explanatory covariates of individual \( i \)
- \( \epsilon_j \) represents the error term of the model

1.2. Health benefits

\[ Y_{i\text{health}} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j \]

Where:
- \( Y_{i\text{health}} \) is the rate of health benefits of individual \( i \)
- \( T_i \) is the treatment received by individual \( i \)
- \( X_i \) is represents the explanatory covariates of individual \( i \)
- \( \epsilon_j \) represents the error term of the model

1.3. Institutionality

\[ Y_{i\text{inst}} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j \]

Where:
- \( Y_{i\text{inst}} \) is the index of institutionality of individual \( i \)
- \( T_i \) is the treatment received by individual \( i \)
- \( X_i \) es representa las covariables explicativas del individuo \( i \)
- \( \epsilon_j \) representa el término de error del modelo

2. Perception indexes:
   2.1. Economic valuation

\[ Y_{ive} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j \]
Where:

- $Y_{i}$ is the economic valuation index of individual $i$
- $T_{i}$ is the treatment received by individual $i$
- $X_{i}$ is represents the explanatory covariates of individual $i$
- $\varepsilon_{j}$ represents the error term of the model

2.2. Health assessment

$$Y_{ws} = \beta_{0} + \beta_{1}T_{i} + \beta_{2}X_{i} + \varepsilon_{j}$$

Where:

- $Y_{ws}$ is the individual health assessment index
- $T_{i}$ is the treatment received by individual $i$
- $X_{i}$ is represents the explanatory covariates of individual $i$
- $\varepsilon_{j}$ represents the error term of the model

2.3. Rights valuation index

$$Y_{iuv} = \beta_{0} + \beta_{1}T_{i} + \beta_{2}X_{i} + \varepsilon_{j}$$

Where:

- $Y_{iuv}$ is the individual rights assessment index
- $T_{i}$ is the treatment received by individual $i$
- $X_{i}$ is represents the explanatory covariates of individual $i$
- $\varepsilon_{j}$ represents the error term of the model

2.4 Other perception indexes

$$Y_{i} = \beta_{0} + \beta_{1}T_{i} + \beta_{2}X_{i} + \varepsilon_{j}$$

Where:

- $Y_{i}$ represents the perception index linked to the importance, form of solvability, IPS security, and cost of social security of individual $i$
- $T_{i}$ is the treatment received by individual $i$
- $X_{i}$ is represents the explanatory covariates of individual $i$
- $\varepsilon_{j}$ represents the error term of the model

3. Response rates to reflective stories:

$$Y_{i_{refl}} = \beta_{0} + \beta_{1}T_{i} + \beta_{2}X_{i} + \varepsilon_{j}$$
Where:
- \( Y_{i,refl1} \) is the reflective index corresponding to dilemma 1 (question 27) of the individual \( i \)
- \( T_i \) is the treatment received by individual \( i \)
- \( X_i \) is represents the explanatory covariates of individual \( i \)
- \( \epsilon_j \) represents the error term of the model

\[
Y_{i,refl1} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j
\]

Where:
- \( Y_{i,refl2} \) is the reflective index corresponding to dilemma 2 (question 28) of the individual \( i \)
- \( T_i \) is the treatment received by individual \( i \)
- \( X_i \) is represents the explanatory covariates of individual \( i \)
- \( \epsilon_j \) represents the error term of the model.

\[
Y_{i,refl2} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j
\]

Where:
- \( Y_{i,refl3} \) is the reflective index corresponding to dilemma 3 (question 29) of the individual \( i \)
- \( T_i \) is the treatment received by individual \( i \)
- \( X_i \) is represents the explanatory covariates of individual \( i \)
- \( \epsilon_j \) represents the error term of the model

\[
Y_{i,refl3} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j
\]

Where:
- \( Y_{i,refl4} \) is the reflective index corresponding to dilemma 4 (question 30) of the individual \( i \)
- \( T_i \) is the treatment received by individual \( i \)
- \( X_i \) is represents the explanatory covariates of individual \( i \)
- \( \epsilon_j \) represents the error term of the model

\[
Y_{i,refl4} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j
\]

4. Aggregate indexes:
4.1. Knowledge

\[
Y_{i,inf} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j
\]

Where:
- \( Y_{i,inf} \) is the aggregate index that combines the three indexes corresponding to the individual's information section (\( i_{inf} \), \( i_{salud} \), \( i_{soc} \))
- \( T_i \) is the treatment received by individual \( i \)
- \( X_i \) is represents the explanatory covariates of individual \( i \)
- \( \epsilon_j \) represents the error term of the model
4.2. Perception

\[ Y_{i \_perc} = \beta_0 + \beta_1 T_i + \beta_2 X_i + \epsilon_j \]

Where:
- \( Y_{i \_perc} \) is the aggregate index combining the three indexes corresponding to the section on perception of individual \( i \) (\( l_{ye}, l_{vs}, l_{vd} \))
- \( T_i \) is the treatment received by individual \( i \)
- \( X_i \) is represents the explanatory covariates of individual \( i \)
- \( \epsilon_j \) represents the error term of the model