

APPENDIX 1. Sampling and weighting procedure.

Two different procedures were developed to estimate the weighting samples; the first one under the basis of the sample design, in order to have a representation of the population affiliated to the *Instituto Mexicano del Seguro Social* (IMSS) in Mexico City, and the second one in order to represent an appropriate sample of depressed and non-depressed subjects.

In the first place, the sample design was stratified in four groups, which were meant to be represented in the sample. These groups corresponded to the four regions in which the city of Mexico is divided according to the *Instituto Mexicano del Seguro Social* (IMSS): Northwest, Northeast, Southwest and Southeast. In each group a three-stage sampling design was applied. The first stage was to get two family medicine units (FMU) within each group using a simple randomization. In the second stage 12 corresponding clinics within each FMU were randomly selected. Finally, the last stage involved the randomized selection of the FMU shift, either the morning or the afternoon shift. Then the probability of inclusion π_{ij} ; given an individual in a j^{th} FMU, and this FMU in turn belongs to an i^{th} groups; would be:

Where π_{ij} is the probability of inclusion of the i^{th} individual in a j^{th} FMU of an group; and π_j is the probability of inclusion j^{th} FMU within the i^{th} group. Due to the simple randomization in each of the three stages of sampling; then we have that:

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Where n_{ij} is the number of FMU in the i group to where the j^{th} FMU belongs. For example, the FMU number 17 which is in the Northwest group would be:

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For the second stage the probability p_{ij} is:

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Where n_{ijk} is the number of offices in the selected j^{th} FMU in the i group to which the k individual belongs. For example, for an individual who belongs to the FMU number 17 which in turn belongs to the Northwest group it would be:

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This due to the fact that the FMU number 17 has 38 offices (including the shifts) and belongs to the Northwest group.

Sampling weights are the inverse of the probability of inclusion w_{ij} giving a total of eight different sampling weights, two for each group.

The second process involved the estimation of the same number of depressed and non-depressed subjects. In this case the weighting estimation was done only to select non-depressed. The strategy used was to select a random number of not-depressed subjects that would be ascribed to each of the FMU; however this information is not available, so the probability of being depressed in each office is 21.7%, then:

depressed subjects would be expected, with an n_{ij} number of patients in the office, which means that $n_{ij} \times 0.217$ not-depressed subjects are to be selected.

Then the number of not-depressed subjects in the office would be _____, from which _____ not-depressed subjects are to be selected. Así que la probabilidad de inclusión de un paciente no deprimido dentro de un consultorio i es:

Thus, the estimation of the probability of inclusion of a not-depressed subject within an office of a th FMU in the group is:

The corresponding sampling weights is the inverse of the probability _____.