One-to-one assistance for social inclusion. A field experiment in extremely vulnerable settings.

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Abstract

We study the effects of one-to-one assistance on the social inclusion of deeply disadvantaged informal workers, using a field experiment. We randomly assign one-to-one assistance to these workers, and, within this treatment group, we randomly assign money to cover the cost of fulfilling the legal codes in order to get a permit to work in the street. In the first follow-up, one month after the intervention, we find that a worker who receives one-to-one assistance is three times more likely to comply with the legal documents required by the government than a worker in the control group. We also find that a worker who receives both one-to-one assistance and cost coverage is four times more likely to comply with the legal requirements. In the second follow-up, nine months later, the effect of the interventions on the possession of the permit had diluted. We explore possible mechanisms that may explain this result. The findings of this study shed light on strategies to help vulnerable populations that suffer deep social exclusion. (*JEL* C93, D04, J46, J62, I30)

Keywords: case management; randomized control trial; field experiment; poverty; social inclusion.

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I. Introduction

Social exclusion may be different from other forms of deprivation. It differs from conventional poverty in terms of depth, length (longer duration – even across generations), and breadth (larger number of dimensions such as the lack or denial of resources –even free public services-, or the inability to participate in the normal relationships and activities, available to the majority of people in society, whether in economic, social, cultural or political arenas) (Levitas et al., 2007). The possible complementarity among the different dimensions can potentially result in multiple mutually reinforcing poverty traps, thus making social exclusion an especially difficult problem to address (Emran, Robano, and Smith, 2014).

Atkinson (1998) states that a key aspect of social exclusion is that of dynamics. People are excluded not just because they are currently without a proper job or income but because they have little prospects for the future. "The link between employment and social inclusion is a complex one. Creating jobs can contribute to ending social exclusion, but success depends on the nature of these new jobs. Do they restore a sense of control? Do they provide an acceptable relative status? Do they offer prospects for the future? These are important questions." (Atkinson, 1998: 16-17)

People working informally on the street is a phenomenon that is spread in many countries, no matter if they are developed (Boels, 2014), developing (Cabrera & Cid, 2014) or undeveloped (Bhowmik, 2012). In particular, there are many examples of these street markets were goods are sold in informally assigned areas. In some cities street vendors are very common, selling from snacks or beverages to flowers, books or paintings. Other examples of these street activities are squeegee men wiping windshields of cars stopped in traffic; street hawkers selling bags, sunglasses of handicrafts; rag-and-bone men collecting unwanted household items. In our field experiment we will work in one of these settings: the market of *cuidacoches*, socially excluded workers who unsolicitedly look after parked cars hoping to get a voluntary tip from drivers in Montevideo, Uruguay. This type of street work is an extended phenomenon in many Latin American countries[1]. The experience of the last few decades suggests that while the anti-poverty programs have, in general, been successful in reaching the moderate poor, the social excluded workers are more often inadequately served or completely bypassed by such programs (Emran, Robano, and Smith, 2014). The multitude of interrelated factors that underpinning social exclusion make it a trap difficult to escape from. This appreciation demands the development and implementation of innovative antipoverty programs designed especially to foster social inclusion. For instance, by a one-to-one assistance program, a nearly socially excluded *cuidacoche* could be assisted in order to obtain, at least, the basic documents needed in any formal job, i.e., identity and health cards, and past criminal records report (if any). Offering help to understand the information about requirements, individualized assistance to cope with difficult procedures, and tailoring the *cuidacoche* to disrupt her predisposition to procrastination, may be key features in a policy focus on extremely vulnerable population.

Previous literature of many different fields also labels one-to-one assistance with the term “case management”. Case management is a process to plan, seek, advocate for, and monitor services from different social services. It helps to avoid problems that come from fragmentation, staff turnover, and inadequate coordination among care providers (National Association of Social Workers, 2013). Campos, Goldstein and McKenzie (2015) study case management in a context of vulnerable individuals. They focus their analysis in informal firms in a poor African region. In their research, they start providing recent literature on the effects of policies toward formalization. This evidence comes from several randomized experiments that find no impact of information and no impact of free registration costs on business registration in Sri-Lanka, Brazil, and Bangladesh. Campos, Goldstein and McKenzie (2015) presents results from a randomized experiment

[1] They are known as “viene-viene” or “franeleros” in Mexico, “cuidaautos” or “guardias” in Chile, “franelinhas” in Brasil, “celadores”, “vigilantes” or “guachimanes” in Colombia, “cuidacarros” in Peru, or “trapitos” in Argentina

designed to increase business formalization in Malawi. They randomly assign informal firms to receive detailed assistance, making the process as costless as possible, by visiting the business in person, helping them to fill out the registration forms, transporting the registration application to and from the registration office, and paying all fees associated with registration. This resulted in an extremely high take-up rate for business registration, though the authors are not able to disentangle the sole effect of pure assistance (that is, without fees coverage). Going beyond the research of Campos, Goldstein and McKenzie (2015), we design our randomized experiment to isolate the effect of pure assistance in the procedures, from the effect of assistance plus monetary coverage.

In our study we focus on those *cuidacoches* that have no permit to work at the street. They could be considered the "poorest of the poor" within the *cuidacoches*. As Table 1 reports, those who have no permit show less savings, less income, a lower rate of health coverage, a greater homeless rate, and worse indicators of external appearance and violent behavior. And the other way round: having the permit predicts better socioeconomic and behavioral outcomes. Also, *cuidacoches* directly report that they see benefits in having the permit (see Table 2). Our experiment asks two straightforward questions: Are deeply disadvantaged informal workers more likely to fulfill the legal requirements of the municipal authority when they received one-to-one assistance? Is this likelihood affected by adding cost coverage of the legal requirements to the one-to-one assistance? Our randomized control trial includes two treatments: T1 offers one-to-one assistance, and T2 offers one-to-one assistance plus monetary cost coverage. A relevant part of the city was divided in 88 cells (which contained several street blocks), and each cell was randomly assigned to T1, T2 or a control group. The differences in the completion rate of the legal requirements of *cuidacoches* working in those areas will provide a causal estimation of the effectiveness of one-to-one assistance and by the presence of one-to-one assistance plus cost coverage. To measure our outcome variable (permit obtained) we were able to gather administrative data provided by the municipal government. This administrative data allows us to employ the real outcomes (that is, if the *cuidacoches*, according to the municipality's registration, has or has not obtained the legal permit). Thus, we can reduce measurement error: *cuidacoches*' under or over reporting their compliance status at the follow-up.

One month after the intervention, we find that the *cuidacoches* who receive sole one-to-one assistance are about 14 percent points more likely to comply with the legal requirements to work on the street than the *cuidacoches* that receive no help. Given that the level of legal compliance in the control group is 8 percent, the likelihood that the *cuidacoches* assigned to T1 obtain the legal permit is approximately three times greater than the likelihood in the control group. We also find that the *cuidacoches* that receive one-to-one assistance plus cost coverage are about 23 percent points more likely to comply with the legal requirements than the *cuidacoches* that receive no help. That is, the likelihood that the *cuidacoches* assigned to T2 obtain the legal permit is approximately four times greater than the likelihood in the control group. Although the combined treatment (one-to-one assistance plus cost coverage = T2) leads to a higher compliance rate, the difference with T1 (only personal assistance) is not statistically different from zero.

Interestingly, nine months after the intervention, the effects of the treatment on the permit ownership disappear: many *cuidacoches* have not complied with a basic legal requirement to maintain the permit, that consists in showing up monthly at the municipality office to simply sign in a book. There are many possible explanations to explore in further research. Anyway, in order to properly interpret this finding, we should bear in mind that the *cuidacoche* who obtained the permit during the experiment, maintains her health card and identity card, no matter if he keeps the permit. And the health card is associated with better health outcomes (Martínez & Barreiro, 2015).

The rest of this paper is organized as follows. Section II lays out the context of our study with basic background information on the market of *cuidacoches*. Section III describes the details of the experimental design. Section IV presents the main results. Section V concludes.

II. Background

Consumers often give tips to workers as a way of payment for some services (Natter and Kaufmann, 2015). Among those workers commonly tipped are vulnerable workers that offer a service associated with an informal right of usufruct. This is the case of workers who wash cars in a street blocks, or exotic dancers and singers in a particular zone of restaurants, or those who offer themselves to pick garbage in a particular block, or golf caddies, or car windshield cleaners at traffic lights.

As for the case of vehicles, we find those that unsolicitedly work on the street as parking valets and looking after parked cars in the hopes of getting a tip in return. Montevideo, the capital of Uruguay, provides an ideal opportunity to study the social inclusion of highly deprived valets in a voluntary payment market. This city has nearly 1,400,000 inhabitants (Uruguayan National Institute of Statistics, 2011) and 540,000 cars (Municipal of Montevideo, Traffic Watchdog, 2015). It has experienced a sudden growth in the number of *cuidacoches* in the last two decades. Several attempts have been made in different countries to regulate this practice, but governments have to deal with a difficult barrier: the behavioral obstacles in deeply vulnerable populations such as *cuidacoches*. Some of these behavioral barriers are procrastination, poor long-run decisions, overemphasizing of the present, perceived negative social identity, perplexity at the presence of many options to achieve the legal requirements, and too much reliance on routine.

The municipality of Montevideo – Intendencia Municipal de Montevideo (IMM) – has a long tradition of issuing regulations for the *cuidacoches* market. Some of these policies date back to 1933[2]. Currently, the policy is to hand out permits which allow a *cuidacoches* to work in exclusivity on a certain block. Table 3 shows that in 2014 the municipality has issued 180 permits and at the end of 2014, 100 of them expired (the permit expires if the *cuidacoche* does not show up each month at the municipality office in order to sign in a book). The legal requirements to achieve the permit are: the health card, the national identity card, and a document providing criminal records if any. Through the permit, any *cuidacoches* can request the authorities the exclusive right to work at a certain block. Interestingly, although the monetary cost of the requirements to afford the permit is low (equivalent to one or two working days as a *cuidacoches*) and the benefit of this permit is large (the monopoly of the assigned block), only half of the *cuidacoches* own the permit. Many hypotheses may be explored to explain this finding. The *cuidacoches* may overemphasize the present and suffer extreme difficulty to think about long run consequences from immediate actions. There is evidence that the tradeoff between immediate outcomes compared to distant ones experiences hyperbolic discounting (McClure et al., 2004; Kable and Glimcher, 2007; 2010), or, even, instead of thinking in the long run, they rely on rules of the thumb or past habits (Stanovich et al., 2012). Another possible explanation of the low rate of compliance with the permit requirement is that concerns about identity (the *cuidacoches* population is a deeply disadvantaged population) predominate *cuidacoches*' thinking and behavior. They may care about the extent to which their behavior deviates from that of their social group (Fryer et al., 2012). Also, the difficulty to obtain the documents that the municipality requires may prevent *cuidacoches*' compliance with the regulations (they are a deprived subpopulation with very little experience in administrative procedures and in dealing with state bureaucracy).

Given these hypotheses, one possible strategy that the municipality may explore to reach the goal of increasing *cuidacoches*' compliance with the legal requirements is one-to-one assistance. By means of one-to-one assistance, the *cuidacoches* may break her predisposition to rely only on the rule of the thumb and routine in order to choose the right courses. Offering help to "get it done now" reduces procrastination. Personal assistance provides a social component to nudge attempts in the required administrative process and can be tailored to individual circumstances. Though Lavecchia, Liu, and Oreopoulos (2014) focus especially in

[2] These regulations can be read in the *Digesto Municipal*: http://imnube.montevideo.gub.uy/share/s/W-5G1M8vS_WgeY1BuFZSEw

education, they develop a general framework for thinking about behavioral barriers and offer paths for solutions.

Several attempts have been made to ban, regulate and legislate this practice in different parts of the world. Thus, another feature that makes Montevideo particularly interesting is that it´s municipality – Intendencia Municipal de Montevideo (IMM) – has issued a policy aimed at regulating this market, which consists in handing out legal permits in exchange of the fulfilment of some requirements. Through this, any *cuidacoches* can request to the authorities the exclusive right to work at a certain block. An informal *cuidacoches* is at risk of losing his working place if another one asks the municipality for that block. The police and the IMM inspectors protect the formal worker if an informal one who has been displaced decides to retaliate.

The *cuidacoches* market experienced a sudden growth in 2002, when the country suffered a severe economic crisis that left a large part of the population under the poverty line. People absorbed by this labor market were, for the most part, unskilled workers who were willing to accept the precarious conditions of this kind of job. Instead of dismantling, the market has consolidated over the last twenty years in a setting of a sustained growth in the purchases of cars.

Cuidacoches are self-employed and are not constrained to a fixed schedule. They stand in a visible spot in the street, wearing a reflective jacket so that people can identify them, and take care of the parked cars. Usually, they also assist people in finding a parking space and parking the car. In some cases, there can be more than one *cuidacoches* in the same block, in which case they settle the issue of how to distribute the work themselves.

The municipality has promoted the legalization of the *cuidacoches* under an active policy. To register themselves, the *cuidacoches* have to present a health card, the national identity card, and a document with criminal records. The registered *cuidacoches* have the property right in her area, which means the municipality will provide protection in the case that another *cuidacoches* wants to work in that area. Once they receive the legal permit, it is mandatory to go to the municipality offices to sign in a form once a month (a practical way to foster a closer relation with the municipal government), and to renovate the documents when they expire. The municipality could revoke the permit in case of misbehavior, complaints from drivers, etc.

The vast majority of the *cuidacoches* work in the capital city of the country, where half of the country´s population is concentrated. In 2014, the number of *cuidacoches* in Montevideo – both registered and unregistered – is about 3,000 (Cabrera & Cid, 2014). Despite the municipality aim to regulate this voluntary payment market, nearly half of them are unregistered.

III. Experimental Design

A. Study Setting and treatments

We have been studying the *cuidacoches*' market since 2013, and collected, built and analyzed a data base of about 700 *cuidacoches* (Cabrera & Cid, 2014, and Blanco, Cabrera & Cid, 2016). This previous research has helped us to explore hypotheses and mechanisms, in order to design the present field experiment.

The previous data base of 700 *cuidacoches* (built from the surveys applied in 2013 and 2014) helped us to identify the blocks of Montevideo with a greater chance of finding *cuidacoches* that have no permit. Thus, in October of 2015, 339 *cuidacoches* with no permit, were identified and randomly assigned to one of three groups. *Cuidacoches* in the *control group* received no one-to-one assistance nor cost coverage of the expenses. They only received a two-page brochure (see figures A.1 and A.2 in the Appendix section) with the basic information to afford the municipality legal permit. Since all the individuals in our experiment were

treated with information, the formalization rate for *cuidacoches* in our experiment should be higher than what would have been in the absence of the intervention. Nonetheless, this informational brochure doesn´t bias our estimations since T1 and T2 also received it. There were several reasons to treat with information also the workers form our control group. Our prior work had shown that the lack of information was a major reported obstacle for not having the working permit. Remarkably, this prior knowledge was confirmed in the baseline survey at the beginning of this intervention (Table 4, "I am not well informed about the procedures for getting the work permit"). Since the cost of the brochure was negligible for the budget of the experiment and we could benefit hundreds of poor workers, guided by the Ethics Committee, we decided to deliver the treatment information to all the participants.

Each *cuidacoches* in the *one-to-one assistance treatment* (T1 group) received, during October and November of 2015, the two-page brochure and the assistance of a social worker to help him in the procedures to achieve the municipality legal requirements for the permit. The requirements are three: the national identity card; the health card demanded in any formal job; a criminal records report (it is a required document, even with no records). The cost of this treatment (social worker fee plus travel allowances) is approximately USD 89 (USD 79 assistant's fee, plus USD 10 travel allowances).

An important feature of the costs of the requirements is that it is gender biased. The health card in the case of women demands more previous clinical studies: it is mandatory that she present recent results of both a mammogram and a papanicolau test. She may afford these tests for free in public services but she may cope with a waiting list of several days. This differential difficulty, against women, in achieving the health card, is observed in Table 4. This table shows the weight of each reason declared by *cuidacoches* for not possessing a valid legal permit at the baseline (therefore, Table 4 includes both those who never got their work permit and those who had an expired one at the baseline). One out of two women states that the procedures to obtain the health card are complicated, while one out of four men report the same. Thus, a treatment defined as personal assistance shows potential gains to cope with the difficult procedures.

The comparison of the *one-to-one assistance treatment* (T1) with the *control group* (C) allows us to measure the impact of the personal assistance to afford the municipal legal permit.

The second treatment arm consists of *one-to-one assistance plus cost coverage treatment*. These *cuidacoches* received, during October and November of 2015, the two-page brochure, the assistance of a social worker to help them in the procedures to achieve the municipality legal requirements for the permit, and the coverage of the costs demanded by the requirements. Table 4 shows that 31% of male *cuidacoches* and 33% of women report that they not have enough money to pay for the documents required by the legal permit. Thus, this second treatment shows also a real potential impact.

The cost coverage is not a future reimbursement: the social worker takes the *cuidacoches* to accomplish the national identity card, the document of criminal records, and the health card, and in each step the social worker pays for him at the clinic and public offices. The comparison of the two treatments allows us to explore the role of financial restrictions to get the municipal legal permit: the monetary costs to fulfill the requirements may be equivalent to two work days as a *cuidacoches*.

B. Data

We have four databases for measuring the impact of the interventions. (1) Cabrera and Cid (2014) and Blanco, Cabrera and Cid (2016) have previously built a database with about 700 *cuidacoches*, both with and without legal permit. We use this data for selecting the zones of the city which have more *cuidacoches*. We include the number of pre-treatment *cuidacoches* as balancing variable in the randomization procedure. (2) A baseline

survey built at the beginning of this intervention, which started in middle April 2015 and ended in May 2015. We use this data to check the balancing condition at the *individual level* after the randomization at the *zone level*. (3) Administrative data provided by the municipal government, that contains the registration of all the *cuidacoches* of Montevideo that -at least once- had a legal permit, from 2002 up 2016. This administrative data from the municipality is key to our analysis because it allows us to build the main outcome variable: legal permit achievement in February 2016. Having the actual formalization of each *cuidacoches* in our sample avoids misreporting (what the *cuidacoches* declare may not coincide with reality), and it also avoids missing values (*cuidacoches* who were untraceable by our team in the streets at the follow up survey). (4) The first round of follow-up survey that took place from November 2015 to February 2016, on average 6 month post-intervention. We will use this data in the next stage of this study to analyze the impact of the intervention in outcomes other than the rate of compliance with the legal requirements, and to explore possible mechanisms.

In Table 5 we present a set of descriptive statistics. These are collected via a survey administrated to *cuidacoches* without legal permit at the start of the program (data source #2). Ninety-one percent of them are male. The average *cuidacoches* is 43 years old, and has been working at the same block for 5.73 years. They work 9.6 hours per day. Twenty-seven percent of them had previously got a legal permit but it has now expired. The baseline survey also includes questions regarding the external appearance of the *cuidacoches*: only one out of four seems tidy, 7% seems influenced by drugs or alcohol, on average they show a regular dental care, and the average quality of language employed by a *cuidacoches* is between poor and normal (according to the subjective assessment of the interviewer).

C. Randomization

Randomization was done at a cell level (group of street blocks). The reason for implementing the randomization at the zone level, rather than at the individual level, is to reduce contamination. We didn´t want to have two adjacent *cuidacoches*, one assigned to the control group and the other to one of the treatments, thus introducing contamination and possible biases in the experiment. Moreover, we exclude a buffer of one block on all sides of the grid cell. The *cuidacoches* working in buffer areas were not invited to join the program. Figure 1 shows a global view of the city with the 88 zones selected for the experiment. Figure 2 is a zoom of the down town city area, where we can see more clearly the buffer areas between the treated zones.

To implement the design, we exploit two previous surveys which we conducted in our prior research agenda (Cabrera & Cid, 2014; Blanco, Cabrera, & Cid, 2016). In those surveys we collected the distribution of *cuidacoches* across Montevideo. Now, for this field experiment, we imposed a grid to divide the city into similar areas in terms of number of *cuidacoches*. To increase power, we balance on a vector of three variables at zone level which are likely to affect the rate of compliance with the legal requirements. These are: a) the number of *cuidacoches* in the cell (obtained from the databases built by Cabrera and Cid, 2014, and by Blanco, Cabrera and Cid, 2016); b) the number area of the cell, which is associated with the number of street blocks; and c) the number of cars in the cell (obtained by the Continuous Household Survey of Uruguay). Randomization is implemented via stratification in this vector of variables. We created groups of four zones which were similar in those strata and then randomly assigned two of them to control, one to T1 (*one-to-one assistance treatment*) and one to T2 (*one-to-one assistance plus cost coverage treatment)*. Zones which were not assigned in the first round of the procedure were balanced using the number of *cuidacoches* and the zone surface area. From the 88 zones included in the randomization, 42 were assigned to *C*, 23 to *T1*, and 23 to *T2*. When the social workers went to those zones to find *cuidacoches*, they were able to interview 339 *cuidacoches* who did not have the legal permit (the *cuidacoches* who already had the working permit were not interviewed nor included in the experiment).

Social workers were hired and trained by members of the research team. Each social worker received a packet with the printed materials for the intervention and an identification from the University. The packet

contains the manual of procedures, copies of the information brochure, copies of the survey, and a map. In order to avoid mistakes, each map contains a part of the city, and identified the cells (groups of blocks) of the control and treatments groups only for the specific zone of the city where that social worker would apply the survey (see Figure 1). Each social worker went over all the blocks in her cells and when she found a *cuidacoches* without permit, she surveyed that *cuidacoches* (each survey took about 30 minutes). If the *cuidacoches* belonged to treatment 1 (T1) or treatment 2 (T2) zone, the social worker encouraged the *cuidacoches* to obtain the documents required by the municipality, and tried to schedule a date to help him in person through the different offices which issue the necessary documents. Thus, in the scheduled day, the social worker went with the *cuidacoches* to public offices and health centers that issue the needed documents, offering help to understand the information and procedures, tailoring the *cuidacoches* through the entire process that ends in the offices of the municipality where the *cuidacoches* finally registers and obtains her legal permit. The total procedures may take 10 hours (7 hours in the different offices and 3 hours in travelling) but they need to be done in different days because each office demand an appointment (some of the appointments may be solicited by phone or computer but, in many cases, the *cuidacoches* have no phone nor computer: the social worker also assists the *cuidacoches* by setting an appointment, employing social worker's phone or computer). In the case of T2, the social worker, besides accompanying the *cuidacoches* in the entire process, pays the cost of documents directly at each office.

The social workers received only one rejection to being surveyed from a *cuidacoches*. The supervisor of the field work closely monitored social workers to help them in case of any difficulty with the *cuidacoches* or with the procedures.

Table 6 presents the means and standard deviations to check the balance condition for the variables used in the randomization procedure and other zone level variables obtained from Household Surveys. Interestingly, though the randomization was done at the zone level, the balance condition is also achieved at the individual level (Table 7). Recall that the individual baseline data was obtained during the baseline survey, after the randomization. The pairwise differences illustrate that the two treatments are well balanced with respect to control and with respect to one another, both at zone and individual level.

D. Identification

Given that our research design is a randomized control trial, the identification strategy is straightforward. To evaluate the impact of the intervention, we start by considering both treatments as a unique treatment:

$$y_{ic} = \alpha + \delta_0 treat_c + X_i'\beta_i + u_{ic} \qquad (1)$$

where y_{ic} takes the value 1 if the *cuidacoches i* located in area *c* achieves the legal permit and 0 otherwise, and $treat_c$ takes the value 1 if the *cuidacoches* receive *one-to-one assistance* (no matter if she receive also the cost coverage of the legal requirements). X_i is a vector of *cuidacoches*' characteristics. The standard errors of the estimates for this and all subsequent models are clustered by cells (group of street blocks). The coefficient of $treat_c$ in this specification is a consistent estimate of the average percentage change in the legal permit compliance from assignment to the treatments.

To evaluate the effect of each treatment on the permit possession we estimate:

$$y_{ic} = \alpha + \sum_{j=1}^{2} \delta_{0j} treat_c^j + X_i'\beta_i + u_{ic} \qquad (2)$$

Our measure of the legal permit achievement comes from administrative data provided by the municipality that registers every owner of a legal permit. $treat_c^j$ denotes the two treatment groups. δ_{0j} captures the causal effect of treatment *j* on permit compliance under the identifying assumption that $treat_c^j$is orthogonal to u_{ic}.

This notwithstanding, the identifying assumption fails if there are spillovers between treatments and the control group. In the presence of spillovers, the control group is not a proper counterfactual for how *cuidacoches* in the treatment groups would have behaved in the absence of the treatments. This might be the case if, for example, *cuidacoches* in the control group change their behavior as a result of knowing that other *cuidacoches* have been offered one-to-one assistance and cost coverage of the requirements to afford the permit. To minimize contamination we have designed the experiment including two rules. In the first place, as we have already explained, randomization was performed at the zone level. In this way, two *cuidacoches* working on adjacent blocks of the same street or around the corner in different streets, were given the same treatment, or were both included in the control group. The second rule was the inclusion of buffer zones. With this precaution we tried to minimize spillovers from one zone to the other. Even if we had not included these precautions, we think that the potential for spillovers was very limited. Indeed, we have data collected from a survey of *cuidacoches* designed by Cabrera and Cid eighteen months before the current experiment (Cabrera & Cid, 2014). This data shows that the median *cuidacoches* reported very low levels of connection with nearby *cuidacoches*.

Another possible concern of field experiments is that the evaluation itself may cause the treatment or comparison group to change its behavior. Changes in behavior among the treatment group are called Hawthorne effects, while changes in behavior among the comparison group are called John Henry effects (Duflo, Glennerster, and Kremer, 2006). The treatment group may be conscious of being observed, which may induce them to alter their behavior for the duration of the experiment (for example, working harder to make it a success). The comparison group may feel despised and react by also altering their behavior (perhaps lowering its effort). In the present study we have tried to minimize the possibility of these biases: we personally trained the social workers to avoid any commentary to *cuidacoches* that may induce them to think that they are part of an experiment.

As we mentioned in a previous section, one out of two women states that the procedures to obtain the health card are complicated, while one out of four men states the same. The costs of requirements seems to be gender biased. The health card in the case of women demands more previous clinical studies. She may afford these tests for free in public services but she may cope with a waiting list of several days. Thus, a treatment defined as personal assistance shows potential gains to cope with the difficult procedures. To evaluate the possible heterogeneity by gender in the impact of the interventions, we estimate equation (1) including the treatment interacting with the dummy female:

$$y_{ic} = \alpha + \delta_0 treat_c * female_i + \delta_1 treat_c + \delta_2 female_i + X_i' \beta_i + u_{ic} \quad (3)$$

IV. Results

Table 8 reports results from the OLS estimator. Columns 1 to 3 display results from equation (1), and they show that a worker that receives one-to-one assistance is three times more likely to comply with the legal documents required by the government than a worker that does not receive the support. Columns 4 to 6 displays the results of the OLS estimator of $\delta_{01}$and δ_{02}, in equation (2). Both coefficients are significantly different form zero, and this fact holds also including different controls. It shows that one-to-one assistance is effective to increase the compliance rate with the permit requirements. The likelihood of fulfilling the

requirements to achieve a legal permit is 14 percentage points higher for *cuidacoches* in the *one-to-one assistance treatment* than the control group; this represents a threefold increase over the mean of the *control group*. Also Column 4 shows that the one-to-one assistance plus cost coverage is effective to increase the rate of compliance with the legal requirements. *Cuidacoches* in the *one-to-one assistance plus cost coverage treatment* show a 23 percentage point increase in the likelihood of compliance with the legal requirements in comparison to the *control group*. This represents a likelihood of compliance with the legal requirements that is four times the likelihood of the *control group*. And, interestingly, the estimate of the rate of compliance of the control group (8 percent) seems to be the upper-bound of the real rate because: a) the possible contamination effect from individuals of the treatments groups that work few blocks away and may transmit positive experiences towards legalization; b) probable general equilibrium effects: a *cuidacoches* of the control group may observe that many other *cuidacoches* are obtaining their permits and thinks that this could end in an equilibrium where only the *cuidacoches* with legal permit may keep their segments of streets.

Notwithstanding the notorious difference between the $\hat{\delta}_{01}$and $\hat{\delta}_{02}$, we cannot reject the null hypothesis that $\delta_{01}$and δ_{02} are equal (t value of the difference is 1.36).

Table 9 reports the estimates of the specification (equation 3) that includes an interacting term (treatment and female). Though the coefficient is positive and may show that the treatment has a special effect on female, we are not able to reject the null hypothesis that there's no interacting effect (it could be a problem of statistical power due to the women at the sample are only 10 percent). The findings are similar in the second follow up (Table 11).

Though the huge impact of the treatment on the compliance with the legal requirements after one month of the intervention, the difference between the rates of *cuidacoches* with a permit in the treatment and control group disappeared in the nine month follow up as Table 10 shows: many *cuidacoches* have not complied with a basic legal requirement to maintain the permit, that consists in showing up monthly at the municipality office to simply sign in a book. Table 12 reports that the *cuidacoches* with and without a valid permit at the second follow up are balanced in observables, except in the type index: a greater type index (index of bad external appearance) predicts the dropping of the permit.

V. Cost Analysis

We calculated total cost of the *one-to-one assistance plus cost coverage treatment* at USD 123 per *cuidacoches* (Section A1 of the appendix shows the components of the cost in detail). This include the payment of the assistant (USD 79), the coverage of the costs of the required documents (USD 34 if they are issued in the most expensive procedure and the *cuidacoches* has already no valid document), and travel allowances for both the assistant and *cuidacoches* (USD 10). Though the assistant receives the travel allowances in advance, she receives her fees only if the *cuidacoches* achieves the legal permit form the municipality. The cost of the *one-to-one assistance treatment* is USD 89 (USD 79 assistant's fee, plus USD 10 travel allowances).

It is estimated that the population of *cuidacoches* in Montevideo is about 3,000, and only about 1,500 of them have the legal permit required by the municipality (Blanco, Cabrera, & Cid, 2016). If no intervention is applied, it is expected that at most 8 percent of the illegal *cuidacoches* end up getting a legal permit (1,500 x 0.08 = 120 *cuidacoches*). With a program designed, for instance, as the *one-to-one assistance plus cost coverage treatment*, we may expect a 23 percent increase in the likelihood of receiving the legal permit, that is, a final figure of 465 *cuidacoches*, and the total cost would be USD 57,195.

At this point we can't perform a traditional cost-benefit analysis because is not possible to estimate precisely the monetary benefits for the society of having legal *cuidacoches* in the streets, instead of informal ones. Nor we can estimate the benefit for a *cuidacoches* of being formal (i.e. less use of violence to protect their place in the street). The aim of this cost analysis section is to convey that the cost of these interventions

is really affordable. Recall that, at most, the intervention may cost USD 123 per *cuidacoches*. In terms of the average income of the *cuidacoches*, this cost is about 8 workdays. And in terms of the minimum wage in Uruguay, the 123 USD cost of the intervention means one third of the monthly minimum wage.

VI. Conclusions

We conduct a field experiment to provide evidence on the effectiveness of the personal assistance approach to help deeply vulnerable populations. We design a *one-to-one assistance treatment* in the voluntary payment market of *cuidacoches*, where unsolicited work is offered at the street: looking after parked cars in the hopes of getting a tip in return is an extended phenomenon in many countries. This type of market is of paramount importance also for the understanding of contemporary phenomena such as those found in blocks where vehicles are washed by informal workers, streets where garbage is picked up in exchange for a voluntary financial compensation or in markets where goods are sold in informally assigned areas.

The context of our experiment is Montevideo, the capital of Uruguay, which experienced a huge increase in the number of *cuidacoches* during the 2000's. The municipality has a policy that demands legal permits to work as a *cuidacoches*, but only half of them comply. To answer the question of whether it is possible to help a very vulnerable population to comply with the formal requirements proposed by the authorities, we designed an experiment. By randomization we assigned illegal *cuidacoches* to a *one-to-one assistance treatment*. Moreover, to explore the role of the financial restrictions to afford the legal requirements of the municipality, we randomly assigned illegal *cuidacoches* to a *one-to-one assistance plus cost coverage treatment*. We find that one-to-one assistance is effective to increase compliance with the legal permit, both as an isolated treatment and combined with cost coverage. We should recall that the designed treatments have two keys components: the research assistants are in a financial rewards scheme (they receive the fees only if the *cuidacoches* affords the legal permit), and the money offered to the *cuidacoches* to cover the expenses of the legal documents is not provided in advance nor reimbursed in the future: the assistant pay the documents directly when they are issued. Interestingly for further research, we have not explored the impact of including into the cost coverage the *cuidacoches* opportunity cost of missing a work day (the multiple procedures to afford the legal requirements are pretty time-demanding).

We find that the impact of personal assistance is economically relevant: while the control group experience a rate of compliance of 8 percent, the *one-to-one assistance treatment* increase the rate of compliance 14 percentage points (it represents a threefold increase in the likelihood of compliance in comparison to the control group), and the *one-to-one assistance plus cost coverage treatment* increase the rate in 23 percentage points (it represents an increase of four times in the likelihood of compliance in comparison to the control group). We cannot reject the null hypothesis that these coefficients are equal, and thus we are not able to say if the cost coverage plays any role. Notwithstanding this, we can affirm that the impact of one-to-one assistance, on the compliance with the legal requirements, is huge, and the cost is low in comparison with other policies to help similar populations. Interestingly, the legal requirements to work as a *cuidacoches* are the same as to apply for any formal job: thus, these treatments could play a role towards social mobility.

Nine months after the intervention, the effects of the treatment on the permit ownership disappeared: many *cuidacoches* have not complied with a basic legal requirement to maintain the permit, which consists in showing up monthly at the municipality office to simply sign in a book. There are many possible explanations to explore in further research.

People absorbed by this labor market were for the most part unskilled workers who were willing to accept the precarious conditions of this kind of job (in the street coping with multiple weather conditions,

many of them homeless, with poor or no health coverage nor pension insurance, suffering a permanent deterioration of their human capital). These conditions may quickly end in social exclusion. The larger message of the paper by Heckman and Kautz (2012) is that soft skills -personality traits, goals, motivations, and preferences that are valued in the labor market and in many other domains- predict success in life, and that they causally produce that success. A large body of evidence shows that stable personality traits exist and are predictive of many behaviors. That is, one-to-one assistance by a professional caregiver may help the *cuidacoche* to cope with procrastination and behavioral barriers to achieve the legal requirements for the permit, but another intervention would be needed if we want to develop stable positive skills like conscientiousness ("the tendency to be organized, responsible, and hardworking" defined by the American Psychology Association), that includes different facets as competence (efficient), order (organized), dutifulness (not careless), achievement striving (ambitious), self-discipline (not lazy), and deliberation (not impulsive) (Heckman & Kautz, 2012). Traits are stable across situations. However, traits are not set in stone. Thus, interventions that change personality are promising avenues for addressing poverty and disadvantage (Heckman & Kautz, 2012): stable social inclusion of deeply vulnerable population demands more research.

Anyway, in order to properly interpret the finding of the dilution of the effect of an isolated one-to-one assistance in the long run, we should bear in mind that the *cuidacoche* who obtained the permit during the experiment, maintains her health card and identity card, no matter if he keeps the permit. And the health card is associated with better health outcomes (Martínez & Barreiro, 2015).

Further research may explore the effects of one-to-one assistance on labor outcomes, on financial inclusion (getting a bank account), on access to the health and pension system (the access to both health and retirement pensions is closely related with the access to the formal labor market), and on crime (upwards social mobility may prevent the involvement on criminal activities). Thus, the findings of this study may foster further research, and shed light on strategies to help deeply vulnerable populations.

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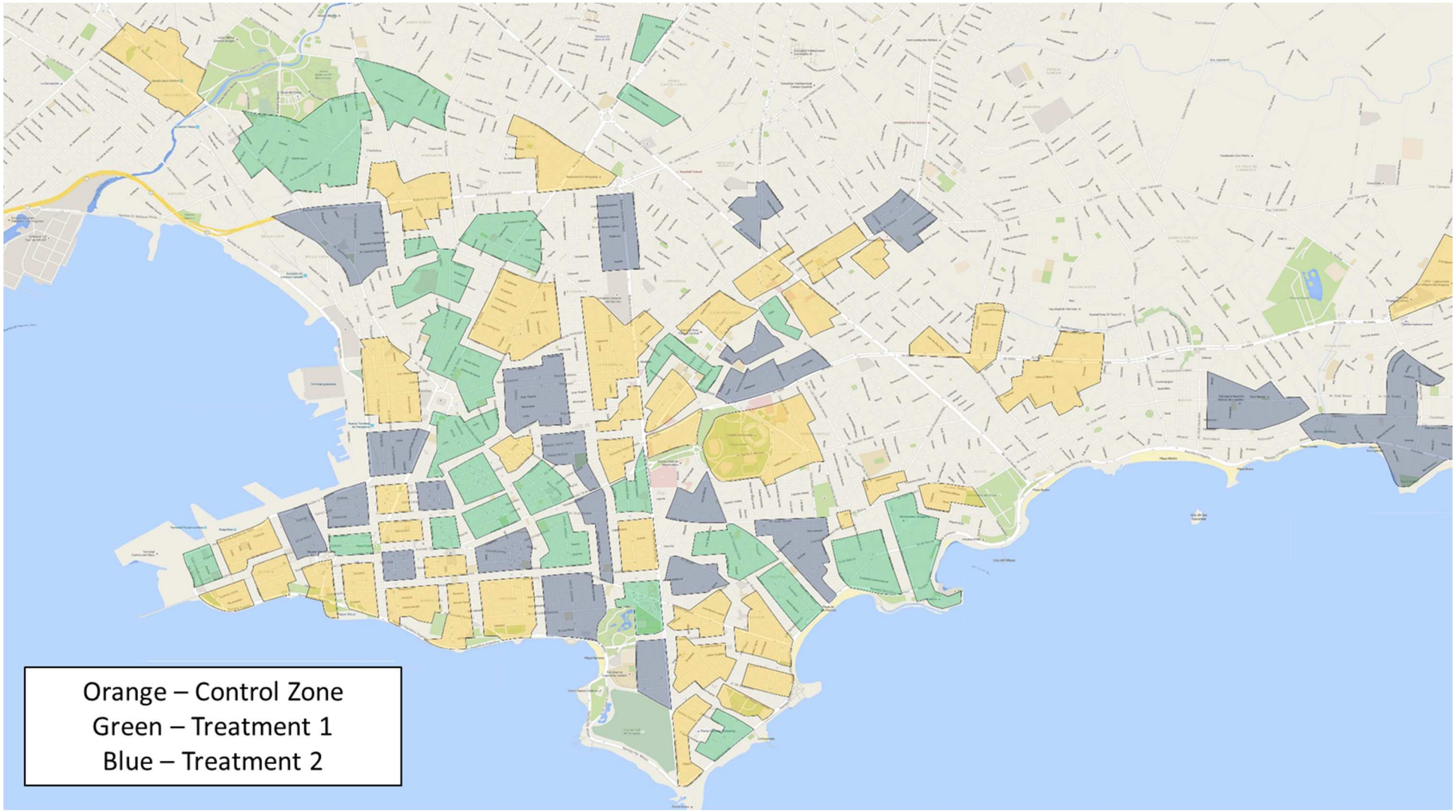

Figure 1. The highlighted zones contain the blocks selected to be divided into cells (Control, Treatment 1, and Treatment 2), in order to implement the randomization. These zones are the ones with the greatest density of *cuidacoches* (Cabrera & Cid, 2014). The individual blocks of Montevideo are marked in black in the map.

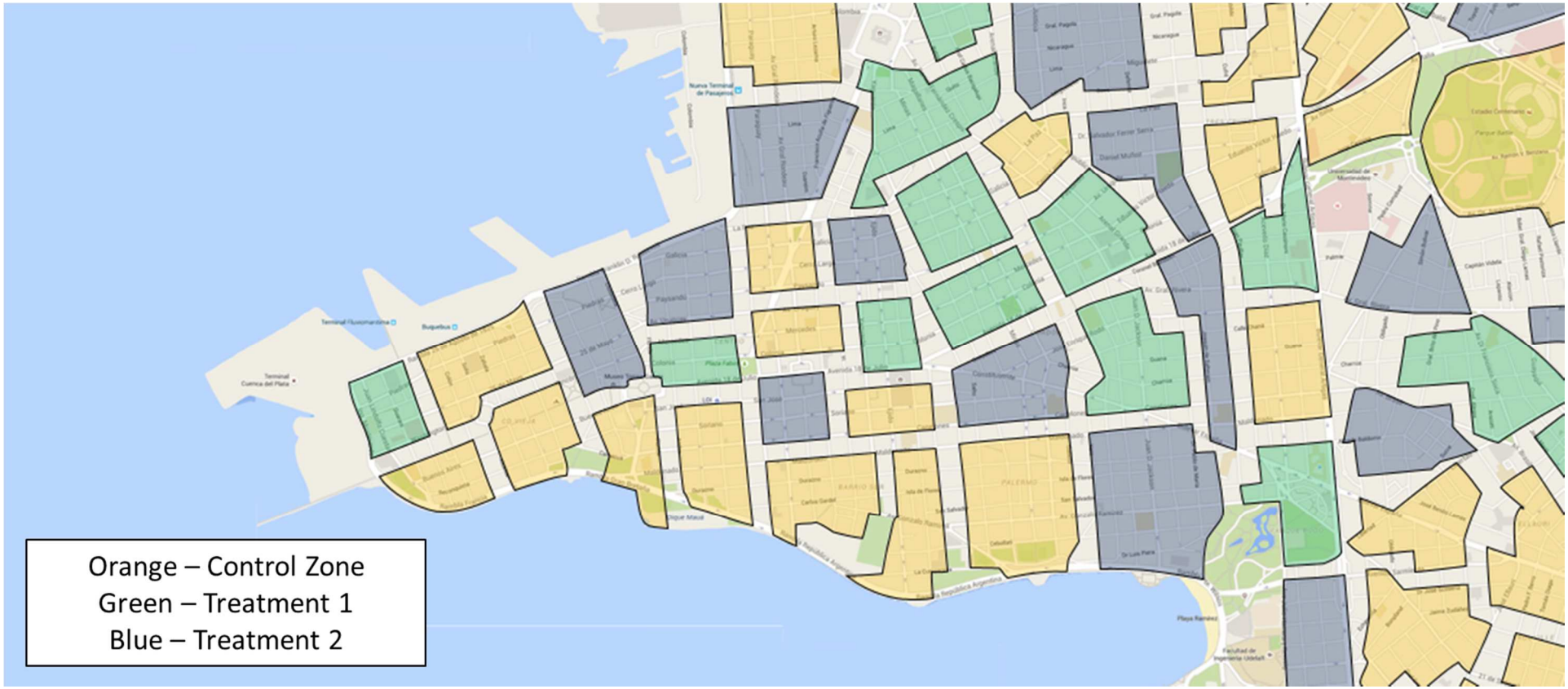

Figure 2. Example of randomization of map cells into treatment groups. Between the experimental cells there are buffer zones of one block which were not included in the experiment.

Table 1 - Well-being associated with work permit

Outcome:	(1) Monthly payment in logs	(2) Savings	(3) Homeless	(4) Health Care	(5) Type Index	(6) Violence Index
Having the work permit	0,150***	0,100***	-0.11***	0.18***	-0.49***	-0,200***
Controls:						
Age	Yes	Yes	Yes	Yes	Yes	Yes
Female	Yes	Yes	Yes	Yes	Yes	Yes
Years of education	Yes	Yes	Yes	Yes	Yes	Yes
Observations	532	434	538	498	511	503

Note: OLS estimates (each estimate includes a constant, but it is not showed in the table).
Source: survey 2013.
*** Significant at the 1 percent level.
** Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 2 - Benefits of having the work permit

	Mean	S.D.	Min	Max	#Obs.
Benefits of having the work permit, reported by cuidacoches with a valid work permit (*)					
I own the block, no one can take me out from it	0.75	0.43	0.00	1.00	327
The police protects me if someone tries to take me out of the block	0.24	0.43	0.00	1.00	327
I get better tips	0.15	0.36	0.00	1.00	327
I find useful the vest the IMM gives me	0.13	0.34	0.00	1.00	327
I want to pay the PBS monotax	0.04	0.20	0.00	1.00	327
Estimated benefits of having the work permit, reported by cuidacoches without a valid work permit (**)					
There is no benefit	0.42	0.49	0.00	1.00	200
It gives me confidence/I feel more secure	0.30	0.45	0.00	1.00	200
I own the block, no one can take me out from it	0.24	0.43	0.00	1.00	200
The police protects me if someone tries to take me out of the block	0.13	0.33	0.00	1.00	200
I get better tips	0.07	0.25	0.00	1.00	200
I find useful the vest the IMM gives me	0.06	0.24	0.00	1.00	200

Note: (*) Source survey 2013.
(**) Source follow up survey December 2015 - March 2016.

Table 3 - Municipality Database

Variable	Description of variables	Total	Percentage
Total	Number of permits provided to cuidacoches	181	-
“Active”	Cuidacoches with an unexpired work permit	81	45%
“Inactive”	Cuidacoches with an expired work permit	100	55%
Women	Number of permits provided to female cuidacoches	30	16%
Men	Number of permits provided to male cuidacoches	151	84%
Age	Average age in years	52	-
Women´s Age	Average women´s age in years	52	-
Men´s Age	Average men´s age in years	52	-

Note: Source Municipal Authorities database. Data corresponding to the inflow for year 2014.

Table 4 - Reasons for not having a legal or valid work permit: Mean Comparison by Gender

	Men	Women	Difference	S.E.	p-value	#Obs.
It is complicated getting the health card	0.29	0.47	0.18**	0.09	0.05	338
I cannot lose working hours on procedures	0.27	0.13	-0.14*	0.09	0.10	338
Having the permit is not necessary for working here	0.32	0.17	-0.15	0.09	0.09	338
The procedures for getting the work permit are complicated(*)	0.13	0.00	-0.13	0.08	0.11	246
I have never had my judicial records(*)	0.13	0.06	-0.07	0.08	0.42	246
The IMM is far away	0.07	0.13	0.06	0.06	0.23	338
I do not have enough money to pay for/renew the work permit	0.31	0.33	0.02	0.09	0.78	338
I have no desire to get the work permit	0.21	0.20	-0.01	0.08	0.92	338
I am not well informed about the procedures for getting the work permit(*)	0.35	0.35	0.00	0.12	0.99	246

Note: This table includes the reasons why those who never got a work permit do not have one and the reasons why those who have an expired work permit do not renew it.
(*) Answer options only available for those who never got their work permit.
Source baseline survey, May 2015.
*** Significant at the 1 percent level.
** Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 5 - Definition and Description of Variables

Variable	Description of variables	Mean	S.D	Min	Max	#Obs.
Female	1 if the person is female, 0 otherwise	0.09	0.28	0.00	1.00	339
Years working as a cuidacoche	Number of years the person has worked in the block as a cuidacoche	5.73	6.77	0.04	39.00	339
Age	Age in years	42.80	14.02	17.00	82.00	332
Hours per day working as a cuidacoche	Hours worked on an average weekly day	9.56	2.74	3.00	16.00	339
The cuidacoche had a legal permit but expired	1 if the person has got a work permit but it has expired and 0 if the person has never got it	0.27	0.45	0.00	1.00	339
Type Index	Index composed of four dummy variables: physical appearance, denture condition, substance abuse and language of the cuidacoche observed by the interviewer. The higher the index (from 0 to 4), the poorer the condition.	0.76	0.94	0.00	4.00	258
Years of education (*)	Years of completed education	5.89	2.89	0.00	16.00	226
Minor children (*)	Number of minor children under their care	0.55	1.07	0.00	8.00	246

Note: Source baseline survey, May 2015.
(*) Source follow up survey, December 2015 - March 2016.

Table 6 - Mean Comparison of Baseline Characteristics (zone level data)

	T1	C	Diff.	S.E.	p-value	#Obs.	T2	C	Diff.	S.E.	p-value	#Obs.	T2	T1	Diff.	S.E.	p-value	#Obs.
Cuidacoches (number)	5.70	5.00	-0.70	-1.03	0.50	65	5.09	5.00	-0.09	-1.02	0.93	65	5.09	5.70	0.61	-1.36	0.66	46
Area	307.02	322.02	15.00	-54.60	0.78	65	346.96	322.02	-24.94	-58.17	0.67	65	346.96	307.02	-39.94	-63.67	0.53	46
Cars (avg by Hhold)	0.42	0.45	0.03	-0.06	0.70	65	0.47	0.45	-0.02	-0.07	0.74	65	0.47	0.42	-0.05	-0.08	0.56	46
Residential dwellings (number)	567.73	570.81	3.08	-42.97	0.94	65	570.94	570.81	-0.13	-44.82	1.00	65	570.94	567.73	-3.21	-42.59	0.94	46
Households (number)	530.35	518.60	-11.75	-38.51	0.76	65	533.46	518.60	-14.86	-40.95	0.72	65	533.46	530.35	-3.11	-40.03	0.94	46
Apartments (pct)	0.71	0.68	-0.03	-0.05	0.51	65	0.68	0.68	-0.00	-0.05	0.91	65	0.68	0.71	0.03	-0.06	0.62	46
Rooms (avg number)	3.21	3.20	-0.01	-0.12	0.95	65	3.29	3.20	-0.09	-0.13	0.53	65	3.29	3.21	-0.08	-0.16	0.63	46
Habitants (avg by hhold)	2.28	2.31	0.03	-0.07	0.62	65	2.32	2.31	-0.01	-0.07	0.90	65	2.32	2.28	-0.04	-0.08	0.60	46
Owner (pct)	0.50	0.53	0.03	-0.03	0.30	65	0.52	0.53	0.01	-0.03	0.75	65	0.52	0.50	-0.02	-0.03	0.57	46
Age	40.76	41.12	0.36	-0.58	0.54	65	40.51	41.12	0.61	-0.55	0.27	65	40.51	40.76	0.25	-0.72	0.73	46
Primary education (avg)	0.14	0.15	0.01	-0.01	0.48	65	0.14	0.15	0.01	-0.01	0.39	65	0.14	0.14	0.00	-0.02	0.92	46
Employed (pct)	0.55	0.55	0.00	-0.01	0.74	65	0.56	0.55	-0.01	-0.01	0.32	65	0.56	0.55	-0.01	-0.01	0.51	46
Retiree (pct)	0.17	0.17	0.00	-0.01	0.72	65	0.16	0.17	0.01	-0.01	0.16	65	0.16	0.17	0.01	-0.01	0.39	46

Note: The number of cuidacoches in each cell come from Blanco, Cabrera and Cid (2016). The number of cells is 88 (42 correspond to “Control” (C), 23 to “Treatment 1” (T1) and 23 to “Treatment 2” (T2)).
The data come from the Uruguayan National Institute of Statistics (2014).
Randomization was performed using the first 3 variables of the table to stratify.
*Significant at the 1 percent level.
*Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 7 - Mean Comparison of Baseline Characteristics

	Treatment 1	Control	Diff.	S.E.	p-value	#Obs.	Treatment 2	Control	Diff.	S.E.	p-value	#Obs.	Treatment 2	Treatment 1	Diff.	S.E.	p-value	#Obs.
Female	0.08	0.09	0.01	0.04	0.82	263	0.08	0.09	0.01	0.04	0.70	268	0.08	0.09	0.01	0.05	0.90	147
Male	0.92	0.91	-0.01	0.04	0.82	263	0.92	0.91	-0.01	0.04	0.70	268	0.92	0.91	-0.01	0.05	0.90	147
Years working as a cuidacoche	5.90	5.45	-0.45	0.88	0.61	263	6.29	5.45	-0.84	0.90	0.36	268	6.29	5.90	-0.39	1.27	0.76	147
Age	43.00	42.70	-0.30	2.02	0.74	257	42.58	42.70	0.12	1.94	0.95	263	43.00	43.33	0.33	2.23	0.71	144
Hours per day working as a cuidacoche	9.10	9.70	0.60	0.37	0.10	263	9.60	9.71	0.11	0.36	0.74	268	9.60	9.10	-0.50	0.50	0.31	147
The cuidacoche had a legal permit but expired	0.27	0.27	0.00	0.06	0.96	263	0.29	0.27	-0.02	0.06	0.69	268	0.29	0.27	-0.02	0.08	0.77	147
Type Index	0.76	0.75	-0.01	0.13	0.94	263	0.79	0.75	-0.04	0.12	0.75	268	0.79	0.76	-0.03	0.17	0.86	147

Note: Source baseline survey, May 2015.
*** Significant at the 1 percent level.
** Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 8 – Treatment effect over obtaining the work permit

Outcome: Obtaining the work permit	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(Mean of the control group: 0.0833)								
T=T1+T2: One-to-one assistance for all cuidacoches, mixed with cost coverage for some cuidacoches	0.189***	0.186***	0.190***	0.182***				
	(0.054)	(0.053)	(0.052)	(0.043)				
T1: One-to-one assistance					0.142***	0.145***	0.150***	0.154***
					(0.068)	(0.068)	(0.070)	(0.060)
T2: One-to-one assistance plus cost coverage					0.232***	0.223***	0.225***	0.209***
					(0.074)	(0.070)	(0.070)	(0.056)
Controls:								
Age	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Female	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Years working as a cuidacoche	No	No	Yes	Yes	No	No	Yes	Yes
Hours per day working as a cuidacoche	No	No	Yes	Yes	No	No	Yes	Yes
The cuidacoche had a legal permit but expired	No	No	Yes	Yes	No	No	Yes	Yes
Type Index (Indicator of external appearance: language, substance abuse, dental care and tidiness)	No	No	Yes	Yes	No	No	Yes	Yes
Fixed Effects: Pollster	No	No	No	Yes	No	No	No	Yes
Observations	339	332	332	332	339	332	332	332

Note: OLS estimates (each estimate includes a constant, but it is not showed); robust standard errors in parentheses.
We cluster standard errors at cell level (group of blocks) in all models.
Source: Municipal Authorities database (December 2015) and baseline survey (May 2015).
*** Significant at the 1 percent level.
** Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 9 – Treatment effect by Gender

Outcome: Obtaining the work permit	(1)	(2)	(3)	(4)
Treatment=T1+T2: One-to-one assistance for all cuidacoches, mixed with cost coverage for some cuidacoches	0.185***	0.180***	0.189***	0.175***
	(0.052)	(0.051)	(0.050)	(0.042)
Female	0.092	0.073	0.056	0.018
	(0.092)	(0.089)	(0.082)	(0.072)
Treatment*Female	0.065	0.062	0.058	0.122
	(0.149)	(0.147)	(0.144)	(0.140)
Controls:				
Age	No	Yes	Yes	Yes
Years working as a cuidacoche	No	No	Yes	Yes
Hours per day working as a cuidacoche	No	No	Yes	Yes
The cuidacoche had a legal permit but expired	No	No	Yes	Yes
Type Index (Indicator of external appearance: language, substance abuse, dental care and tidiness)	No	No	Yes	Yes
Fixed Effects: Pollster	No	No	No	Yes
Observations	339	332	331	331

Note: OLS estimates (each estimate includes a constant, but it is not showed); robust standard errors in parentheses.
We cluster standard errors at cell level (group of blocks) in all models.
Source: Municipal Authorities database (December 2015) and baseline survey (May 2015)
*** Significant at the 1 percent level.
** Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 10 – Treatment effect over having a valid work permit 9 months after the intervention

Outcome: Having a valid work permit 9 months after the intervention (Mean of the control group: 0.078)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
T=T1+T2: One-to-one assistance for all cuidacoches, mixed with cost coverage for some cuidacoches	0.051 (0.038)	0.045 (0.037)	0.044 (0.037)	0.048 (0.037)				
T1: One-to-one assistance					0.062	0.064	0.061	0.070
					(0.056)	(0.056)	(0.057)	(0.054)
T2: One-to-one assistance plus cost coverage					0.040	0.028	0.029	0.027
					(0.040)	(0.037)	(0.037)	(0.039)
Controls:								
Age	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Female	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Years working as a cuidacoche	No	No	Yes	Yes	No	No	Yes	Yes
Hours per day working as a cuidacoche	No	No	Yes	Yes	No	No	Yes	Yes
The cuidacoche had a legal permit but expired	No	No	Yes	Yes	No	No	Yes	Yes
Type Index (Indicator of external appearance: language, substance abuse, dental care and tidiness)	No	No	Yes	Yes	No	No	Yes	Yes
Fixed Effects: Pollster	No	No	No	Yes	No	No	No	Yes
Observations	339	332	332	332	339	332	332	332

Note: OLS estimates (each estimate includes a constant, but it is not showed); robust standard errors in parentheses.
We cluster standard errors at cell level (group of blocks) in all models.
Source: Municipal Authorities database (September 2016) and baseline survey (May 2015).
*** Significant at the 1 percent level.
** Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 11 – Treatment effect over having a valid work permit 9 months after the intervention by Gender

Outcome: Having a valid work permit 9 months after the intervention	(1)	(2)	(3)	(4)
Treatment=T1+T2: One-to-one assistance for all cuidacoches, mixed with cost coverage for some cuidacoches	0.057	0.050	0.055	0.058
	(0.035)	(0.035)	(0.035)	(0.035)
Female	0.098	0.085	0.097	0.084
	(0.091)	(0.089)	(0.087)	(0.089)
Treatment*Female	-0.057	-0.055	-0.065	-0.049
	(0.140)	(0.138)	(0.138)	(0.143)
Controls:				
Age	No	Yes	Yes	Yes
Years working as a cuidacoche	No	No	Yes	Yes
Hours per day working as a cuidacoche	No	No	Yes	Yes
The cuidacoche had a legal permit but expired	No	No	Yes	Yes
Type Index (Indicator of external appearance: language, substance abuse, dental care and tidiness)	No	No	Yes	Yes
Fixed Effects: Pollster	No	No	No	Yes
Observations	339	332	331	331

Note: OLS estimates (each estimate includes a constant, but it is not showed); robust standard errors in parentheses.
We cluster standard errors at cell level (group of blocks) in all models.
Source: Municipal Authorities database (September 2016) and baseline survey (May 2015)
*** Significant at the 1 percent level.
** Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 12 – Mean Comparison of Baseline Characteristics by Cuidacoche´s trajectories

	Cuidacoches that kept a valid work permit during all follow ups	Cuidacoches that lost their work permit after the first follow up	Difference	S.E.	p-value	#Obs.
Type Index	0.44	1.28	0.84***	0.31	0.009	41
Hours per day working as a cuidacoche	9.20	10.11	0.91	0.77	0.248	41
Age	46.14	46.72	0.58	3.60	0.872	40
Years working as a cuidacoche	5.94	6.41	0.47	1.95	0.810	41
Years of education (*)	5,53	5,07	-0,46	1,01	0,65	34
Minor children (*)	0,45	0,29	-0,16	0,29	0,57	34
The cuidacoche had a legal permit but expired	0.48	0.56	0.08	0.16	0.63	41
Female	0.13	0.17	0.04	0.11	0.752	41

Note: Source baseline survey, May 2015.
(*) Source follow up survey, December 2015 - March 2016.
*** Significant at the 1 percent level
** Significant at the 5 percent level.
*Significant at the 10 percent level.

Appendix

A1. Components of the costs of the legal requirements

A1.1 Identity card

One of requirements is the national identity card. It costs is relatively low, about USD 8 - the average daily income of a cuidacoches is USD 14 (Cabrera & Cid, 2015) - but the procedure may demands some days: a date some weeks ahead is assigned by a phone call and, in the assigned date, the procedure takes about an hour. An express procedure costs USD 14. Also, it is possible to get the identity card for free if a person demonstrate that she is below the poverty line.

A1.2 Report of criminal records

Once the cuidacoche has obtained the identity card, she should start the procedure to afford another requirement that is the document of criminal records. This document is standard and it may be required from any employee. It reports if a person has or has not criminal records. The cost of a normal procedure to obtain this document is USD 2.5, and the express procedure costs USD 5.

A1.3 Health card

Finally, another requirement is a health card. It is the standard health card that is demanded by the government for workers in any sector of the economy. This card implies clinical studies, and a check-up by a doctor and by a dentist. These clinical studies and check-up are basic and in an hour you may get the health card. If the clinical studies or the check-up show anything wrong, the clinic may deny the issue of the health card or may issue a provisional health card. It is mandatory to renew the health card every two years, but if you receive a provisional one, you may have a job but are obliged to renew in some few months. There are no shortage of clinics that offer the health card, they are scattered across many neighborhoods, and the cost is low, about USD 15. Also, a person that demonstrate that she is below the poverty line may afford the health card free in some clinics of the government. An important feature of the health card is that it demands more previous clinical studies in the case of a woman: thus, though the cost of the health card is also USD 15 for a woman, it is mandatory that she present recent results of both a mammogram and a papanicolau test. She may afford these tests for free in public services but she may cope with a waiting list of several days.

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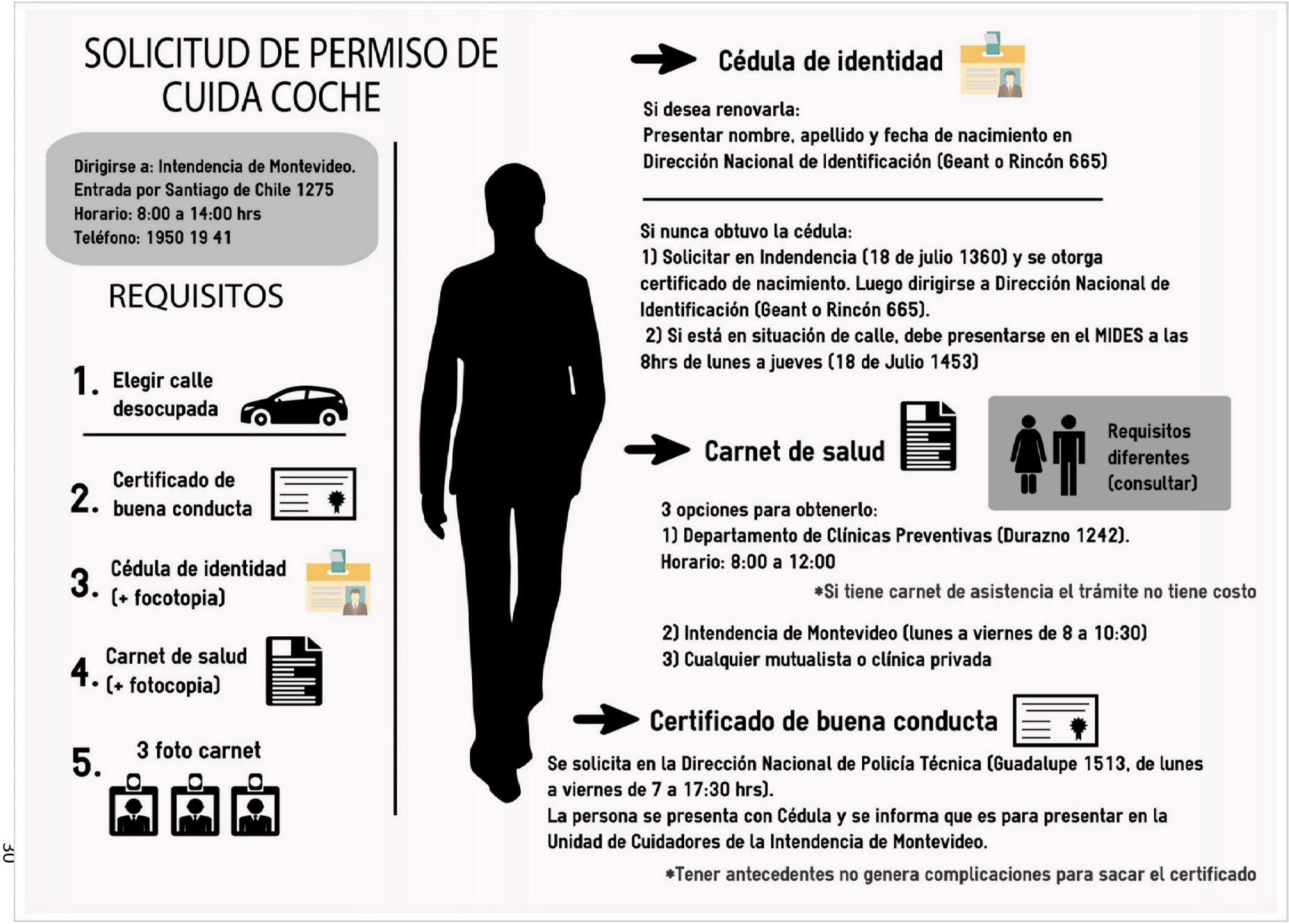

Figure A.1. Brochure of information page 1

Figure A.2. Brochure of information, page 2

Cédula de identidad

Para renovar cédula de identidad, se puede realizar una reserva común o de urgencia.

- **Reserva común:** Se da una fecha y hora en un plazo de 20 días con un costo de 209$. Para pedir hora se hace en los mismos locales o en un local Abitab, Redpagos, correobank o al 09002101 (Ciudad vieja)/ 09002227 (Geant).
- **Reserva de urgencia:** Se da una fecha y hora en un día con un costo de 418$. Para pedir hora se hace en los mismos locales o en un local Abitab, Redpagos, correobank o al 09002102 (Ciudad vieja)/ 09002228 (Geant).

Carnet de salud

1) Se puede retirar en el Departamento de Clínicas Preventivas en la calle Durazno 1242 (a 5 cuadras de la Intendencia). Es gratis presentando el carnet de asistencia y la cédula, o con un costo de 0,4 UR (322$ el 1/3/2015) presentando solo la cédula. El horario de atención es de 8:00 a 10:30 de lunes a viernes. Para contactar con el centro: 29002951 y para pedir hora: 08008610 o en el mismo centro.
2) Se puede solicitar en la Intendencia de Montevideo de lunes a viernes entre 8:00 a 14:00 horas. Se requiere de cédula, el costo es de 414$ o 207$ presentando el carnet de asistencia. Por información contactar al 19503000 opción 4.
3) En cualquier mutualista privada, costos varían.

En general se pide Carnet de vacuna antitetánica, muestra de orina en frasco, 12 horas de ayuno, Certificado médico en caso de enfermedad crónica o bajo medicamentos, llevar lentes si utiliza. Para las mujeres entre 21 y 65 años se requiere Papanicolaou y para las mujeres entre 40 y 59 años se requiere una mamografía. Por más información contactar a IMM o Departamento de Clínicas Preventivas.

Certificado de buena conducta

El costo es de 80$ el trámite común (15 días hábiles) o 160$ el trámite urgente (2 días hábiles). Para contactar llamar al 22091612 interno 28.

Carnet de asistencia (opcional)

Se puede obtener en la oficina de ASSE en Cerro Largo 1816 esquina Fernández Crespo. El centro opera de 8:00 a 17:00 de lunes a viernes, el trámite tardará media hora y el certificado tiene una vigencia de 3 años.

Se requiere de los siguientes puntos y completar un formulario:

- Fotocopia de la cédula de identidad (se puede hacer en el mismo centro).
- Fotocopia de constancia de ingresos (se puede solicitar en el MIDES).
- Fotocopia de constancia de domicilio.

*Los costos son del 10/03/2015, podrían aumentar en el correr del año.