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A Noncontributory Pension Program for Older Persons in Yucatan, Mexico

Implementing and Designing the Evaluation of the Program in Merida

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Preface

This report is the second in a series of documents that describe a collaborative effort by the government of the state of Yucatan, Mexico, and the RAND Corporation to design, implement, and evaluate a program to alleviate poverty among the elderly by providing cash benefits to those who are age 70 and older.

The program has been implemented in phases in 37 Yucatan localities over four years. Phases I and II implemented Reconocer Rural [Acknowledge Rural] in rural areas, and phase III implemented Reconocer Urbano [Acknowledge Urban] in the cities of Valladolid and Merida. The program also has an evaluation project, Escuchar [Listen].

The first document in the series, Aguila, Kapteyn, et al. (forthcoming), describes the design and implementation of the program and its evaluation in Valladolid. This report describes the design and implementation of the program and its evaluation in Merida. Aguila, Kapteyn, et al. (forthcoming) and the present report are available in both English and Spanish.

The Merida program began in 2009 and included a longitudinal study of its effects. The program randomly selected older adults in Merida to receive a monthly pension of MXN $550 (about US$67 at 2011 purchasing power parity [PPP]), an amount equal to 31 percent of the minimum wage in Yucatan (MXN $1,772.40 in January 2012). Th study included a comprehensive socioeconomic and self-reported health survey and measurements of more than 15 anthropometric and biomedical indicators of well-being. We will present findings from the evaluations in later reports or journal articles.

We hope that this document expands the understanding of issues related to the elderly population around the world and the implications of those issues for future generations. We believe that this joint work between a research center (RAND) and a state government (the government of Yucatan) provides valuable lessons for designing, implementing, and evaluating public policies and the integration of teams to develop similar programs.

Studies (Centro de Investigación y de Estudios Avanzados, or CINVESTAV) Merida Unit, University College London, Yale University, and the RAND Corporation.

RAND Labor and Population has built an international reputation for conducting objective, high-quality, empirical research to support and improve policies and organizations around the world. Its work focuses on children and families, demographic behavior, education and training, labor markets, social welfare policy, immigration, international development, financial decisionmaking, and issues related to aging and retirement, with a common aim of understanding how policy and social and economic forces affect individual decisionmaking and human well-being.

CLASP, a part of RAND Labor and Population, unites a distinguished collective of international researchers invested in addressing the most-pressing challenges and finding unique solutions that can contribute to a path of sustainable development for Latin Americans at home, in the United States, and around the world.

For questions and comments regarding CLASP, please contact Lucrecia Santibanez, Director, CLASP, at 310-393-0411 x6310, or by email at Lucrecia@rand.org.

For questions and comments regarding this report, please contact the project leader, Emma Aguila, at 310-393-0411 x6682, or by email at eaguila@rand.org. Emma can also be reached at the University of Southern California, Sol Price School of Public Policy, 213-821-0702, or by email at eaguilav@usc.edu.

Materials related to this survey project, including the list of appendix materials, the list of technical reports and research papers, and other related information, are available at http://www.rand.org/labor/centers/clasp/research/projects/social-security-program.html.

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Summary

Across the globe, changes in life expectancy, morbidity, and access to health care are contributing to the growth of populations 65 years of age or older. In Mexico, such growth is evident in the increasing number of older adults in the total population. In 1970, there were eight older adults per 100 children; by 2000, there were 14, and, by 2010, there were 21. Mexico entered the 20th century with a life expectancy slightly above 30 years old; this increased to 60 by 1970 and currently is 75 years (Consejo Nacional de Población [CONAPO, or National Population Council], 2012). Within Yucatan (see Figure S.1), life expectancy increased from 70 years in 1990 to 74 years in 2000; by 2030, it is expected to be 81 years for women and 77 years for men.

These changing demographics and their potential consequences led the government of Yucatan to consider a social policy focused on adults aged 70 years old or older that would provide them with a noncontributory pension to supplement their income and improve their quality of life. This would be implemented in localities where no other federal or state institutions had operated any similar program. Nationally, only 42 percent of workers in Mexico contribute to any social security system that provides a pension at retirement age (Aguila, Diaz, et al., 2011). This situation has existed for decades and is a problem in many other countries; noncontributory pension programs may mitigate this.

In 2007, the government of Yucatan initiated a pension program for older adults living in localities of more than 2,500 inhabitants each (phases I and II). In 2008, it extended the program to older adults living in localities with more than 20,000 inhabitants each (phase III).

Figure S.1
Mexico and the State of Yucatan

SOURCE: Instituto Nacional de Estadística y Geografía (INEGI). Used with permission.

Only 11 Yucatan localities met this population threshold: Hunucma, Kanasin, Merida, Motul, Oxkutzcab, Progreso, Tekax, Ticul, Tizimin, Uman, and Valladolid.

The first locality with more than 20,000 inhabitants where the program was implemented was Valladolid. In 2008, the Yucatan government was able to budget and provide the pension universally to all older adults there. When the social program was expanded to the capital city of Merida, the high number of older adults (about 40,000, according to the 2010 National Population Census) prevented the government from providing universal coverage. Rather, the government decided to randomly select those who would receive the pension. This allowed an experimental design for evaluation of the program.

RAND researchers designed the randomized controlled trial for Merida. Older adults who receive the pension form the treatment group, and those who do not form the control group. To design the sample, we used information from CONAPO and the Mexican National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía, or INEGI) on the distribution of population by age and by basic geostatistic area (área geoestadística básica, or AGEB). After designing the sample, the data-collection team (composed of interviewers, supervisors, and a coordinator), with the support of INEGI, conducted a census (screening and listing households) of randomly selected blocks using INEGI methodology. The field team already had training and experience from the data-collection efforts in Valladolid, where Reconocer Urbano was first introduced. To work in Merida, they required only some additional training and a new certification by the RAND survey director for locating households with at least one older adult in a larger urban area with a more complex distribution of the targeted population.

Merida is the largest city in Yucatan. In devising a strategy to disburse the monthly cash pension to beneficiaries, we paid particular attention to the need to set up disbursement centers in areas that were easily accessible to respondents. In contrast to Valladolid, where participants received payments from a single center, the Merida program required multiple disbursement centers. The first group of Merida participants, joining the program in 2009, received pension payments in cash; the second group, joining in 2010, received direct payments to a bank account that beneficiaries could access with a debit card. In this report, we examine the effectiveness of both options. We refer to the evaluation of the Merida cash-payment program as evaluation 2 and to the bank account–payment program as evaluation 3. The evaluation conducted in Valladolid we refer to as evaluation 1 (see Aguila, Kapteyn, et al., forthcoming).

The evaluation of the pension program began as the program was implemented and involved collecting detailed individual- and household-level data. We modified the surveys used in the Valladolid evaluation for the Merida evaluations. For the Merida surveys, we included questions about the educational performance (school enrollment and attendance and time spent in educational activities) of children ages 5–13 years living with the older adult, questions on mortality expectations, and collection of dried blood spots (DBSs) for possible indicators (e.g., high levels of blood sugar) of chronic diseases in older adults (see Appendixes A–C). In addition, from the first follow-up survey, beneficiaries who participated in the household- and individual-level surveys received a cash incentive of MXN $50 at the end of the interview to thank them for their participation. The use of cash incentives in other countries has reduced the number of refusals at each wave of data collection for longitudinal studies. In subsequent reports, we will assess the effects of cash incentives on response rates.

The data-collection activities in Merida were part of an existing agreement of collaboration between RAND and the government of Yucatan (signed in 2008). A seasoned team of data collectors and supervisors conducted the data collection in Merida. This report describes their activities for evaluations 2 and 3 in Merida.

Acknowledgments

We wish to thank the RAND Center for Latin American Social Policy (CLASP) and the government of the state of Yucatan for their collaboration and efforts in completing this evaluation study. We want to thank Ivonne Ortega Pacheco, former governor of the state of Yucatan, for her continuous support during all the work done not only for the study but also for the two reports written to date.

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This study has benefited greatly from the participation of each and every one of the older adults who participated in the evaluation study. Their contributions could help improve the future of the next generations of older adults. Finally, we would like to thank the following people who worked on or participated in the project:

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Abbreviations

AGEB	área geoestadística básica, or basic geostatistic area
ATM	automated teller machine
CAPI	computer-assisted personal interviewing
CINVESTAV	Centro de Investigación y de Estudios Avanzados, or Center of Investigation and Advanced Studies
CLASP	RAND Center for Latin American Social Policy
COESPO	Consejo Estatal de Población, or Yucatan State Population Council
CONAPO	Consejo Nacional de Población, or National Population Council
CONEVAL	Consejo Nacional de Evaluación de la Política de Desarrollo Social, or Mexican National Council for Evaluation of Social Development Policies
DBS	dried blood spot
ENCAHEY	Encuesta de Características Socioeconómicas del Hogar en el Estado de Yucatán, or Survey of Household Socioeconomic Characteristics in the State of Yucatan
GPS	Global Positioning System
INEGI	Instituto Nacional de Estadística y Geografía, or National Institute for Statistics and Geography
L.A.FANS	Los Angeles Family and Neighborhood Survey
MMIC	Multimode Interviewing Capability
MxFLS	Mexican Family Life Survey
NIA	National Institute on Aging
PPP	purchasing power parity

Introduction

The global phenomenon of an aging population has broad and interconnected societal repercussions affecting many facets of everyday life, including work, education, family structure, women's participation, health, economic development, and social cohesion (Frenk, 2012). These changes have introduced new problems that are only beginning to be understood. Although policymakers have proposed solutions to many of these problems, these are often only partially effective, particularly in addressing needs of future generations. Hence, government officials, academics, and professionals in several fields and from various research centers seek to increase their understanding of these demographic phenomena to develop new policies to fit a changing world.

One step that some countries have taken to meet the needs of the elderly population is the introduction of noncontributory pension programs. Many such recent programs have had favorable results (see Aguila, Kapteyn, et al., forthcoming, for a more detailed discussion). Governments may provide benefits for older adults (e.g., those age 65 and older) who did not have a pension for varying reasons, such as nonparticipation in a "universal" scheme or to alleviate poverty in old age.

Noncontributory pension programs are unlikely to be sustainable in the future. This is particularly true in societies in which the weight of wealth and economic development will increasingly be on a diminishing segment of the population while the elderly population continues to grow. In Mexico, for example, the old-age dependency ratio (adults age 65 and older per 100 people aged 15 to 64) was 10.1 in 2011 but, by 2050, is projected to be 31.8, representing more than a threefold increase. This means that, as the population ages, there will be a decreasing percentage of working adults supporting both children and older persons (Aguila, Diaz, et al., 2011). A key question Mexico must confront is how it will support its elderly population as the ratio of the number of older adults to the number of working-age adults (i.e., its old-age dependency ratio) continues to increase.

We therefore consider it essential to study, understand, and evaluate the effects of certain social and political measures, such as noncontributory pension programs, and to collaborate with local and international research institutions on the design and development of public policies for the older population. It is critical to examine the labor market and incentives for participation in the formal and informal sectors to understand how formal pensions may affect the behavior of workers.[1]

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[1] The informal sector is composed of self-employed persons and wage earners who do not make social security contributions.

Merida's Noncontributory Pension Program

The Yucatan state government developed its noncontributory pension program as part of its increasing interest in public policy for older persons. It has introduced the program in three phases. Phases I and II, Reconocer Rural, introduced the program for rural and semi-urban localities. It included a cash payment of MXN $500 per month (about US$61 USD at 2011 purchasing power parity [PPP]) and a food basket. We describe this program in detail in Aguila, Kapteyn, et al. (forthcoming). Phase III, Reconocer Urbano, introduced the program to Valladolid as the first location for expansion of the program to cities of more than 20,000 inhabitants each. Evaluation of the program also began in phase III. RAND and the state government jointly trained a team of data collectors to list, identify, and enroll older adults in the program. Phase III benefits eliminated the food basket but added its value, approximately MXN $50, to the cash payment, so the amount of the noncontributory pension in Valladolid is MXN $550 monthly, an amount equal to 31 percent of the minimum wage in Yucatan (MXN $1,772.40 in January 2012). Valladolid beneficiaries received their first payments in December 2008. Figure 1.1 shows a Reconocer beneficiary.

The second location for phase III was the city of Merida, the state capital, where beneficiaries—adults age 70 and older from randomly selected blocks—received the first payment of the cash pension in December 2009. In December 2010, a second cohort of beneficiaries in Merida began receiving pension payments to bank accounts they could access with a debit card.

Table 1.1 summarizes the noncontributory pension program in Valladolid and Merida (Reconocer Rural and Reconocer Urbano), including phases, specific name, targeted population, benefits, and starting year.

Table 1.1
Noncontributory Pension Program, Reconocer Rural and Reconocer Urbano

Phase	Noncontributory Pension Program	Targeted Population	Benefits	Starting Year
I	Reconocer Rural	10 localities with more than 2,500 inhabitants each but fewer than 6,500 inhabitants each	MXN $500 in cash and a food basket	2007
II	Reconocer Rural	16 localities with fewer than 20,000 inhabitants each	MXN $500 in cash and a food basket	2007
III	Reconocer Urbano	11 localities with more than 20,000 inhabitants each, including Valladolid	Valladolid[a] MXN $550 in cash	2008
			Merida[b] MXN $550 in cash	2009
			MXN $550 debit card	2010

[a] Started the evaluation on the noncontributory pension program.

[b] Of the 11 localities eligible to participate in phase III, the state has introduced the program to only two: Valladolid and Merida.

**Figure 1.1
Beneficiary of the Reconocer Program**

SOURCE: Armantina García. Used with
permission.

Evaluation of the Noncontributory Pension Program

From the outset, the design of the noncontributory pension program, Reconocer Urbano, included an evaluation component. For this evaluation, the state government partnered with the RAND Corporation. We believe that this collaboration has been important for two reasons: It ensured a rigorous evaluation, and it introduced the state to a new era in public policy. Independent and simultaneous evaluations are essential to adequately examine the impact of public policies and programs and to inform future policy choices and decisions.

The main objective of the evaluation program is to assess the impact of the noncontributory pension program on the health, nutrition, and well-being of the program beneficiaries. The evaluation collected detailed information about individuals, households, and communities. Individual-level data include the collection of a variety of biomarkers, anthropometric measurements, balance tests, hemoglobin tests, and dried-blood-spot (DBS) tests. They also include an extensive survey of older adults with questions about their stress, depression, availability of and access to food, changes in their consumption of alcohol and tobacco, and finances (including transfers and support to and from family and friends) (see Appendixes A–C).

A unique aspect of this study is the information it will provide to help us understand how public policies may affect the relationships between financial security, health, and longevity for the elderly. The longitudinal evaluation that we describe in this technical report began in August 2009. We implemented two evaluations. What we call evaluation 2 began in 2009 among Merida recipients of the cash pension. Evaluation 3 began in 2010 among the

transfer recipients (i.e., those who receive payments to a bank account). We randomly assigned participants and control-group members in each evaluation, making them both experimental designs. In each evaluation, we surveyed participants and control-group members prior to the first pension disbursement (the baseline survey) and twice after disbursement began (the follow-up surveys).

In this report, we discuss details of the implementation of the program and its evaluation. In Chapter Two, we describe the implementation of Reconocer Urbano in Merida. In Chapter Three, we discuss implementation of the program evaluations, including the preparation of the sample, the cartographic work and the planning operations for the surveys, and collection of information. In Chapter Four, we present some concluding remarks and lessons learned from our experience. Future publications will analyze data from these evaluations. At the end of the report, we provide a list of appendixes in English (A), Spanish (B), and Mayan (C) that are available online.

Implementation of the Noncontributory Pension Program, Phase III: Reconocer Urbano Merida

In this chapter, we describe the implementation of the noncontributory pension program in the city of Merida, including how the cash and debit-card pension programs were designed, planned, organized, and implemented. We also discuss the selection and training of the team responsible for listing, enrolling, and disbursing the pension payment to older adults. This team is also responsible for corresponding electronic and administrative control.

The pension program staff includes six promoters who were selected and trained to enroll older adults in the program and to disburse the pension to the treatment group and one coordinator who supervises and organizes the work of the promoters.

Eleven localities were eligible for phase III of the program, which sought to extend the program to cities with more than 20,000 inhabitants each. These localities were Hunucma, Kanasin, Merida, Motul, Oxkutzcab, Progreso, Tekax, Ticul, Tizimin, Uman, and Valladolid (see Figure 2.1).

Among these 11 localities, resource constraints limited phase III implementation of Reconocer to two: Valladolid and Merida. Table 2.1 shows their population, region, and poverty levels based on 2010 census data. Earlier, we discussed implementation of the program in Valladolid, including the quasi-experimental evaluation there, as well as implementation of phases I and II (see Aguila, Kapteyn, et al., forthcoming).

The same logo (see Figure 2.2) developed for Reconocer Urbano materials in Valladolid was used in Merida.

Table 2.1
Pension Program Localities, Populations, and Poverty Levels, Phase III

City	Population	Region of Yucatan	Poverty
Valladolid	48,973	Northeast	Very low
Merida	777,615	Northwest	Very low

SOURCE: Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL, or Mexican National Council for Evaluation of Social Development Policies), 2011.

NOTE: Estimations conducted by CONEVAL based on the 2010 Mexican Population and Housing Census.

Figure 2.1
Yucatan Localities Eligible for Noncontributory Pension Program: Reconocer Urbano
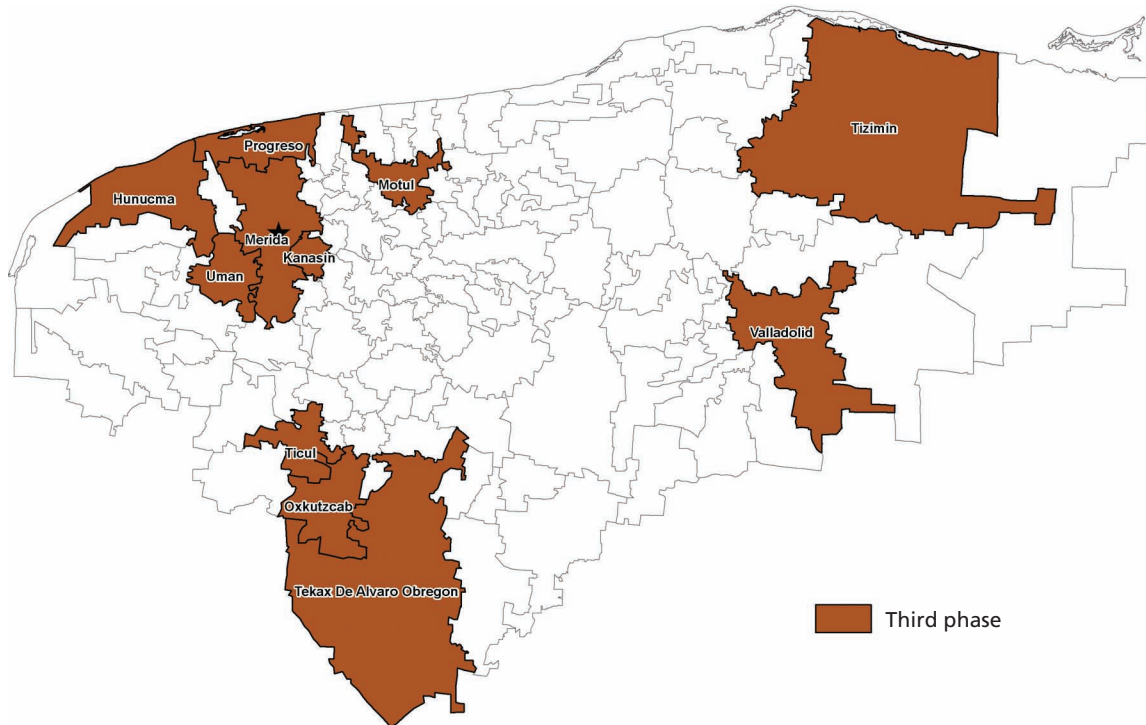
SOURCE: Instituto Nacional de Estadística y Geografía (INEGI). Used with permission.

Figure 2.2
Logo for Reconocer
Urbano

Stage 1: Cash Disbursement

Forty-two percent of the Yucatan population lived in the city of Merida in 2010. The city had 39,911 older adults age 70 and older, who formed 5.2 percent of the total population (INEGI, or Mexican National Institute of Statistics and Geography, undated). The large number of elderly adults in the city impeded the government from offering immediate universal pension coverage but instead obliged it to devise a plan to target the neediest.

To do this, we compared the indexes developed by CONEVAL and the National Population Council (Consejo Nacional de Población, or CONAPO) at the level of the basic geostatistic area (área geoestadística básica, or AGEB). Unfortunately, this showed that the indexes differed in their classification of poverty in 150 of the 342 AGEBs in Merida, with 33 AGEBs presenting large differences for targeting purposes. Given these results, we decided to create an AGEB-level index for the pension program that would account for physical and social characteristics of neighborhoods and might more accurately reflect the socioeconomic conditions of the blocks selected for the program.

To collect data for such an index, we adapted the Neighborhood Observation Form and the Social Observations Form from a RAND survey, the Los Angeles Family and Neighborhood Survey (L.A.FANS). We used these forms to collect neighborhood information for 112 blocks in May 2009.

The Neighborhood Observation Form has 42 items about characteristics, such as the quality of streets, sidewalks, lighting, litter, graffiti, housing type, condition of buildings, leisure facilities, commercial establishments, and institutions. The Social Observations Form has 22 items about the presence of security officers, children, adolescents, groups of adolescents, adults, prostitutes, homeless people and those drinking alcoholic beverages on the street, and people's reactions in the presence of the observer.

The final step before constructing our poverty index was to compare our block-level index with the AGEB-level indexes of CONEVAL and CONAPO. Of the 112 blocks we observed, we found that 20 were stratified at different levels for each index, reflecting the heterogeneity of poverty in a single geographic area. That is, the blocks within each AGEB can be so different that it is difficult to develop an index that averages the poverty level across them (additional information will be in a subsequent technical report on geographic targeting). For this reason, we concluded that using a geography-based index was not appropriate for targeting our program in Merida. Rather, we randomly selected a sample of city blocks to screen and identify participants for the noncontributory pension program and its evaluation.

In the first stage of the program, the census of households in randomly selected city blocks allowed us to identify permanent residents who were age 70 and older. We randomized these adults to treatment (would soon begin to receive the pension) and control (would not receive the pension until a later date) groups. Program staff then visited those selected to receive the pension to provide information about protocols and procedures for enrollment and disbursement.

At the same time we designed our statistical sample and identified eligible households, we also formulated our strategy for disbursement. We invited older adults to visit a specific location monthly to receive their payments, established rules of operation, and designed an electronic registration system and information management procedures.

We asked local education authorities to help us identify six public elementary schools where the program could have booths two or three days each month to disburse pension payments. We selected schools with both morning and evening classes, which allowed recipients to collect their pension at a time convenient for them. Because the pension was paid in cash and each booth served about 200 adults every month, we also sought locations where local security personnel could be present.

Using the geographical distribution of the randomly selected blocks, we chose the location of the six schools, and we divided the city into six service areas to provide an adequate distribution of the pension. We assigned to one promoter who was responsible for the beneficiaries in that area. If the promoter found that an older adult was unable to go to the booth to pick up

the pension, then the pension was taken to the recipient's home. Promoters also delivered the pension to recipients in a hospital or care facility.

The pension payment was in cash and nontransferable; eligible adults were required to give written authorization to receive the pension and be listed and registered in the administrative records of the program. Beneficiaries who die were not replaced by new beneficiaries. If an adult moves out of the town or did not collect the pension for three consecutive months, the individual was temporarily canceled from the program.

Enrollment of beneficiaries began on October 29, 2009, with the first pensions delivered in December 2009. We developed a detailed enrollment methodology aided by an electronic registration system. We used the electronic registration system to capture name, address, birth date, gender, and other basic information for each adult beneficiary. We also used it to store documents requested in the registration process (and scanned at the time of registration), including a birth certificate and proof of address. The system also stored identification-card pictures (taken at the time of enrollment). Each record in the enrollment database included a bar code to record and monitor the monthly pension payment in each of the disbursement booths. The program had its own software designed to optimize the management of all information generated during the operation of the program, from enrollment to pension payment. The promoters and their coordinators had laptop computers and kept collected data on a server with restricted access.

We have striven to ensure high quality, timeliness, and respect and consideration for the elderly in pension delivery. Disbursement of pensions occurred over four days each month, usually during the second half of the month. Beneficiaries were allowed to select the school where they received their pension payments. During the first two days, the pension was disbursed at three of the six schools; the second two days, the pension was disbursed in the other three schools. Along with pension payment, promoters gave each recipient a flyer with the dates of the next payment, the contact information for the program, and the promoter assigned to work with the beneficiary in obtaining his or her pension.

Stage 2: Debit Card

The second stage of Reconocer Urbano occurred in 2010. During this stage, pension payments were deposited directly into a bank account from which older adults, with a linked debit card, could withdraw at automated teller machines (ATMs) or banks; recipients could also use the debit cards for purchases at some stores. To test feasibility and acceptance of debit-card disbursement by the older adults, we established a pilot program among a sample of 200 older adults, of whom 179 were enrolled. Figure 2.3 shows a couple who are happy with their new debit card.

We selected the beneficiaries in both the pilot and the expansion of the second phase by the same statistical-sample procedure used to select stage 1 participants. We wrote a manual for project staff to illustrate how to train older adults to use the debit card. We will include this manual in an additional technical report about the pilot debit-card program.

At the time of registration, the promoter who conducted the home visit asked 11 questions of recipients about previous experience with any type of banking service and to record doubts or concerns about use of a debit card. This short survey also asked recipients about their access to transportation and their level of independence to gauge whether they could go to the bank by themselves regularly. Program staff trained beneficiaries in using the debit cards and provided each an educational brochure with an illustrated explanation for using an ATM.

Figure 2.3
Happy Grandparents Receiving Their Pension with Debit Card

SOURCE: Mariana Mussi. Used with permission.

Our initial questionnaire identified those in the pilot group of 179 beneficiaries who were unable to go to the cashier and had no relatives or neighbors to help them use an ATM. In these cases, the promoter completed a disability form and requested authorization for recipients to have home delivery of payments.

In September 2010, one month after the first bank deposit, field staff conducted a 15-question follow-up survey by telephone to ask recipients about their satisfaction with using the debit card. We conducted this follow-up survey in the next two months as well (for a total of three times in the first months) to determine changes in satisfaction and ease of use with the debit card.

Most respondents to these follow-up questionnaires preferred pension payment by debit card. Most also withdrew the full amount at one time and did not use the debit card to make payments directly in stores. In many cases, a relative made the withdrawal for the beneficiary. It was very difficult to commit fraud (or to enroll persons who are not age-eligible) because recipients were asked for various types of documentation, which were scanned and stored in the program's database, to confirm their identity and their age. Also, the beneficiaries had to provide documentation in order to sign the contract with the bank for use of the debit card.

Because of the acceptance that beneficiaries expressed in the questionnaires, safety concerns regarding money transportation, and the human and administrative costs for hiring field staff o disburse the pensions, we extended use of the debit card in December 2010.

We then agreed with the bank to not require a contract for each beneficiary but to administer the pensions under a single government contract. The administrative office of Reconocer Urbano now makes a monthly transfer to the bank for each beneficiary.

Program Evaluation

As noted earlier, we implemented the program and its evaluation concurrently. In this chapter, we describe the design and implementation of the evaluation, Escuchar, of the noncontributory pension program that began during phase III, when the program expanded to Merida. We developed the logo in Figure 3.1 for the evaluation materials in Valladolid, Motul, and Merida.

We describe how we built the infrastructure and tools necessary to implement the evaluation program and how we recruited and trained the data-collection team, established a program office, and purchased equipment and materials. We also describe how we developed, translated, tested, programmed, and applied the surveys used to collect data, as well as data processing and the other tasks conducted as part of the evaluations (for more information about these tasks, see Aguila, Kapteyn, et al., forthcoming).

Table 3.1 lists the locations, years, surveys, and incentives for each of the evaluations of the noncontributory pension program. We describe evaluation 1 in Aguila, Kapteyn, et al., forthcoming; in this report, we describe evaluations 2 and 3.

Figure 3.2 presents a timeline for evaluation 2 and 3 activities, which we describe in order of occurrence.

Figure 3.3 shows the calendar of activities with more details and helps to describe the interventions and data-collection efforts sequentially.

We deliberately conducted surveys for evaluations 2 and 3 at different times, in part to plan and maximize our use of limited program resources. Because the three evaluations were conducted separately, we can analyze them independently, regardless of time in between surveys.

Figure 3.1
Logo for Escuchar

ESCUCHAR
Evaluación Socioeconómica y
de Salud de la Población de la
Tercera Edad

Table 3.1
Evaluations of the Noncontributory Pension Program, Escuchar

Evaluation	Location	Starting Year	Survey	Incentive
1	Valladolid treatment group; Motul control group	2008	Baseline, Valladolid and Motul	No incentive
			First follow-up, Valladolid and Motul	No incentive
			Second follow-up, Valladolid and Motul	Incentive (tote bag)
2	Merida	2009	Baseline, Merida	Incentive (tote bag)
			First follow-up, Merida	Incentive (MXN $50)
			Second follow-up, Merida	Incentive (MXN $50)
3	Merida	2010	Baseline Merida	Incentive (tote bag)
			First follow-up, Merida	Incentive (MXN $50)
			Second follow-up, Merida	Incentive (MXN $50)

NOTE: The surveys are accessible as appendixes to this report.

Figure 3.2
Timeline of the Noncontributory Pension Program and Second and Third Evaluations
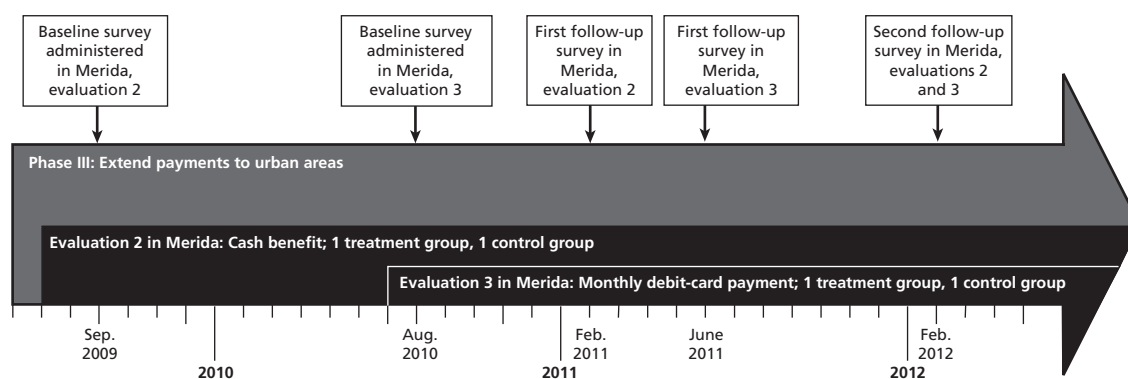
NOTE: The second follow-up for evaluations 2 and 3 was finished by September 15, 2012.

Selection of Treatment and Control Groups

Two issues led us to a random-sampling design rather than a targeting of neighborhoods for evaluating the pension program in Merida. First, as earlier noted, there is much socioeconomic heterogeneity in the city. A single city block may have households with very low or high levels of marginalization (as measured by observable conditions, such as quality of housing stock). Second, rates of marginalization may not accurately reflect socioeconomic status, access to resources, and the quality of life for older adults. For example, an elderly adult could live in a house that is in good condition but not have adequate food intake or money to pay for health care.

Figure 3.3
Calendar of Activities for the Second and Third Evaluations

Year	Task Description	Jan. 1	2	3	4	Feb. 1	2	3	4	Mar. 1	2	3	4	Apr. 1	2	3	4	May 1	2	3	4	June 1	2	3	4	July 1	2	3	4	Aug. 1	2	3	4	Sep. 1	2	3	4	Oct. 1	2	3	4	Nov. 1	2	3	4	Dec. 1	2	3	4
2009	Selection of treatment and control groups																													▓	▓																		
	Logistic and administrative arrangements for baseline survey, Merida, evaluation 2																																▓	▓															
	Census and data collection for baseline survey, Merida, evaluation 2																																	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓				
2010	Census for price survey in Merida			▓	▓																																												
	Census for pilot debit-card survey									▓																																							
	Census for Merida, evaluation 3														▓	▓																																	
	Data collection for pilot debit-card survey																					▓	▓	▓																									
	Logistic and administrative arrangements for baseline survey, Merida, evaluation 3																					▓	▓	▓	▓	▓	▓																					
	Data collection for baseline survey, Merida, evaluation 3																																	▓	▓	▓	▓	▓	▓									
	Data collection for price survey																																									▓	▓	▓					
2011	Logistic and administrative arrangements for first follow-up survey, Merida, evaluation 2					▓	▓																																										
	Data collection for first follow-up survey, Merida, evaluation 2							▓	▓	▓	▓	▓	▓																																				
	Training for DBS test												▓																																				
	Logistic and administrative arrangements for first follow-up survey, Merida, evaluation 3																	▓	▓																														
	Data collection for first follow-up survey, Merida, evaluation 3																					▓	▓	▓	▓	▓	▓																					
2012	Logistic and administrative arrangements for second follow-up survey, Merida, evaluations 2 and 3					▓	▓																																										
	Data collection for second follow-up survey, Merida, evaluations 2 and 3							▓	▓	▓	▓	▓	▓	▓	▓																																		
	Data collection for first follow-up price survey																	▓	▓	▓																													

Merida had a population of 777,615 in the 2010 Mexican census. Table 3.2 presents selected socioeconomic characteristics for Merida. In addition to the population with incomplete primary education, 2.7 percent of Merida adults are illiterate. Small but notable proportions of Merida households lack a sewage system, electricity, and running water. Merida has a very low overall level of poverty.

The large population of older adults in Merida helped prompt the decision to roll out the program incrementally. Once we selected our statistical sample of blocks, the field team conducted a household census on the selected blocks using mapping and cartography methods specified by INEGI. We used the same format and methodology for this census as we used for that in evaluation 1 (see Aguila, Kapteyn, et al., forthcoming). Screening of each block begins on its northwest corner, whose location is documented with the Global Positioning System (GPS).

We used a two-evaluation sampling design (see Figure 3.4). Initially, we selected 965 city blocks at random, with inclusion probabilities proportional to the number of elderly within a block. Of these, we assigned 455 blocks to evaluation 2 and 510 blocks to evaluation 3. In evaluation 2, we combined the census and the conduct of the baseline survey into one data-collection operation. In contrast, evaluation 3 included a census before proceeding to conduct the household survey.

We collected data for evaluation 2 between September and November 2009, at the same time identifying all households in each city block with members age 70 and older for the baseline survey. Within each block for evaluation 2, we randomly selected an equal proportion of treatment and control households. This resulted in an approximately self-weighting sample that minimizes both cluster and probability design effects and maximizes information content subject to a budget constraint in a cluster sample. This is appropriate for within-block treatment randomization or for block-level treatment randomization. The treatment group for evaluation 2 started receiving the pension benefit in December 2009. We conducted a follow-up survey with evaluation 2 participants between February and April 2011. In neither evaluation did we interview households lacking members age 70 and older.

We conducted our baseline survey of evaluation 3 in August and October 2010. Within each city block, we chose differing proportions of households for treatment and control. This

Table 3.2
Characteristics of the Population in Merida Obtained from 2010 Mexican Census Data

Variable	Population
Illiterate population 15 years old or above (percentage)	2.7
Population 15 years old or above with incomplete primary education (percentage)	12.6
Households without sewage system or toilet (percentage)	3.7
Households without electricity (percentage)	0.6
Households without running water (percentage)	1.9
Households with earthen floor (percentage)	0.8
Households without refrigerator (percentage)	7.0
Level of poverty	Very low
Poverty index	−1.4

SOURCE: CONAPO, 2012a.

NOTE: Estimations conducted by CONAPO based on the 2010 Mexican census (INEGI, undated).

Figure 3.4
Sampling Strategy and Timeline of Data Collection
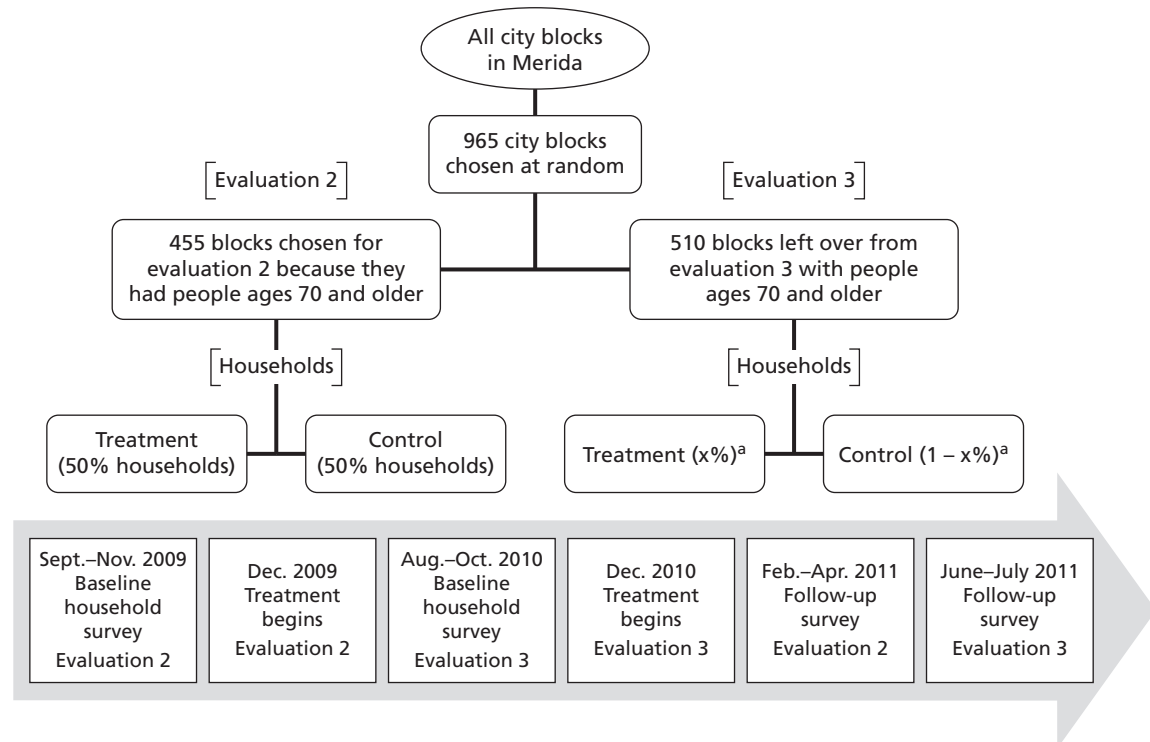
ᵃ Within each city block, different combinations of households were assigned to treatment and control.

allows us to identify spillover effects—that is, effects of the program beyond its immediate community. Generally, program evaluation methods consider potential effects of the program on the control group or other members of the community, and these are called spillover effects. We will assess these spillover effects in future publications. Evaluation 3 recipients started receiving pension benefits in December 2010. We re-interviewed evaluation 3 households between June and July 2011.

Development of Survey

We sought to design a survey instrument comparable to that used in the Mexican Health and Aging Survey, a representative survey of the older Mexican population. We also sought to customize the survey to the specific conditions and characteristics of the population in Yucatan. The result was the Survey of Household Socioeconomic Characteristics in the State of Yucatan (Encuesta de Características Socioeconómicas del Hogar en el Estado de Yucatán, or ENCAHEY).

We originally developed the survey in English and later translated it into Spanish and Mayan. We included a comprehensive set of measures related to health, working hours, access to food and health care, and prices of food and medicines. We also included survey measures that had been validated and tested in other surveys, as described in Aguila, Kapteyn, et al. (forthcoming). Further discussion of these topics is also available in Aguila, Kapteyn, et al.

(forthcoming). In addition, for the second follow-up survey of evaluation 2 and both follow-up surveys of evaluation 3, we collected DBSs, using protocols established for the Health and Retirement Survey (Crimmins et al., 2009).

Unlike our work in Valladolid, we did not conduct a community survey of key informants in Merida because we considered data collected from the 2010 Mexican census and other national-level surveys to be reasonably accurate on community conditions.

Our baseline survey instrument for evaluation 2 in Merida was the same used in Valladolid and Motul in 2008. We extended our first follow-up survey for evaluation 2 to analyze the impact of the pension on school performance (school enrollment and attendance and time spent in educational activities) of children age 5 to 13 living in the household of the pension recipient. We extended our second follow-up survey of evaluation 2 to include total household expenditure, mortality expectations, and DBS samples collected from each of the older-adult beneficiaries.

Our baseline survey for evaluation 3 included all questions in the evaluation 2 baseline survey plus questions on school performance of children age 5 to 13 living in the household of the pension recipient. The first follow-up survey of evaluation 3 added collection of DBS samples. The second follow-up included all modifications mentioned for previous waves, as well as questions about mortality expectations (more information on these questions will be in a subsequent technical report about mortality expectations) and total household spending.

For the baseline survey of evaluations 2 and 3, we gave all eligible adults a shopping bag worth about MXN $50 as an incentive and appreciation for their participation. Respondents to the first and second follow-up surveys of evaluations 2 and 3 in Merida also received a monetary incentive of MXN $50 (about US$6 at 2011 PPP).

We conducted two surveys to analyze the variability in the prices of basic food items and the medications (analgesics, antibiotics, and drugs for high blood pressure) most commonly used by the elderly. We conducted the first survey in establishments selling basic food staples and the second in drugstores. Project field team members and researchers developed the survey on basic food staples. We adapted the pharmacy questionnaire from the 2005 Mexican Family Life Survey (MxFLS; see MxFLS website, undated), "Prices in the Community" module, "Prices at Drugstore" (PRF) section.[1] The questionnaires included information regarding the prices for 18 basic grocery food products and 17 pharmaceutical products as collected in establishments and pharmacies.[2] We conducted these surveys in two waves: the first in November and the first week of December 2010 and the second during the third and fourth weeks of May 2012.

For both these surveys, we used the same method for collecting information, locating and listing eight blocks around the block previously selected from the random sample of blocks for evaluations 2 and 3, in addition to the original block. In all, we surveyed 3,193 establishments and 274 pharmacies in 2012.

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[1]   We excluded sections on antiparasitic, antibiotic, antituberculosis, hematology, anemia, solution, peptic ulcer, anticonvulsant, pneumology, and hormone medicines.

[2]   Sites of data collection were grocery-store chains, other grocery stores, *tendejones* [corner stores], fruit shops and green grocers, small establishments, supermarkets, bakeries, pharmacy chains, and private pharmacies.

Training Data-Collection Staff

Our work for evaluations 2 and 3 in Merida began in August 2009 with training and feedback from the team of interviewers and supervisors who had been working in Valladolid and Motul since 2008. Throughout the evaluation, we had a low staff turnover rate.

After the evaluation in Valladolid and Motul, most of the field and administrative team members continued working for the program and expressed their interest in working in Merida. Initiating fieldwork in Merida presented logistical, organizational, and administrative challenges, given the size of the city and its complex transportation system. We overcame these challenges through tests for practicing the cartography and methods of the census forms, tests that helped us strengthen and evaluate the fieldwork team.

With the certification, feedback, and previous field experience, the field team was ready to begin identifying eligible households in Merida for evaluations 2 and 3. We also trained and recertified the field team in collecting biomedical and anthropometric measurements, in following the introductory protocols for the households, in obtaining the informed consent of participants for interviews, and in data collection, safeguarding, and confidentiality.

For the first follow-up survey of evaluation 3, we trained all members of the field team to collect DBS samples. Thomas McDade, professor of anthropology at Northwestern University, and the RAND survey director supervised the training, which directed staff in obtaining fi e DBS samples from each older adult and how to properly carry and store the DBS cards.

The size and complexity of the surveys; the number of interviews to be conducted; the logistical, operational, and administrative needs of the program; and the program budget and timeline defined the size and structure of the team. We discuss the hiring and selection process of the field team in Aguila, Kapteyn, et al. (forthcoming).

RAND and the government of the state of Yucatan invested considerable time and effort to provide comprehensive training to the data-collection staff conducting the evaluation surveys. Together, the staff responsible for the evaluation activities received more than 250 hours of training. We describe this training in Aguila, Kapteyn, et al. (forthcoming).

Field-Testing

We were able to maintain quality and control of the survey during the field operations (three baseline surveys and two follow-up surveys in each of the three evaluations) through field-testing before the first evaluation, careful translation and adaptation of the survey, and the selection, training, and certification of the field team (interviewers, supervisors, and field coordinator). We also followed advice from public and academic institutions (see Aguila, Kapteyn, et al., forthcoming).

To incorporate the DBS sample in the survey, we requested the assistance and advice of McDade. We conducted practical training in March 2011. Staff learned how to obtain usable samples, to fill the fi e circles in the cards, and to exercise proper care for storing and handling the card and disposing of waste. We protected the cards in envelopes and transported them in a thermo container before depositing them in a bigger container to complete the process of drying and properly identifying them. We store the samples in a special freezer until they were transported for analysis. The process of drying and storing the DBS samples requires extreme control to ensure the conservation of the sample.

Creating a Listing of the Targeted Population

To build the list of individuals who were included in the second and third evaluations in Merida, the field team conducted a census (listing and screening all households) in the eligible city blocks. We signed a collaborative agreement with INEGI to provide us with maps of Merida. A cartographer accompanied our data-collection team and updated the maps as necessary. INEGI also helped train our data-collection team in the listing process and provided quality assurance for it. Interviewers listed and screened each selected household in Merida to identify age-eligible respondents and, using a brief screening form, collected first and last names, age, date of birth, gender, preferred language, and capacity to participate in the interview for each eligible adult.

In September and November 2009 and in April and May 2010, we conducted a census in Merida of the 965 blocks selected for our evaluation to identify all adults age 70 and older. In total, we listed 30,967 households: 15,655 for evaluation 2 (2009), 12,661 households for evaluation 3 (2010), and 2,651 households for the pilot debit-card experiment. From these, we registered 4,806 older adults: 2,421 for evaluation 2, 2,206 for evaluation 3, and 179 for the pilot debit card. Once this task was completed, field interviewers returned to households with eligible residents to invite them to participate in the study by completing an interview and allowing the collection of anthropometric measurements.

Data Collection in Merida

We conducted a survey at baseline, administered before the pension program was announced or implemented, and subsequent follow-up surveys. The survey conducted in the field includes an in-person interview that collected information on socioeconomic, demographic, and household characteristics; expenditures on nondurable goods; family transfers; health status; physical functioning; health access and utilization; social networks; social support; care-giving responsibilities; diet; physical activity; and medication use. In addition to the in-person interview, we asked study respondents to permit a series of health measurements, including blood pressure, pulmonary capacity, grip strength, balance, timed walk, anthropometry (height, weight, waist circumference, arm length, height from foot to knee, and arm circumference), an anemia test using a portable hemoglobin analyzer, and a DBS test.[3]

We included all adults age 70 and older in the selected blocks in the study, in either the treatment or comparison groups. For those unable to complete an interview (because, for example, of poor health or a language barrier), we attempted to conduct the interview with a proxy respondent (an adult who was able to provide information on the health, well-being, and daily life of the eligible adult) from the same household. We asked proxy respondents to complete only a subset of the survey questions for which they could provide an appropriate response. We did not ask them to answer questions that only the respondent could adequately answer (e.g., on self-reported health, mental health, life satisfaction, and cognitive function). We also did not request physical or anthropometric measurements from proxy respondents. The survey included a series of questions on household expenditures for food and other items, household assets, and household characteristics. In cases in which the eligible adult was not the

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[3]   The anemia test was included only in the follow-up interviews.

best informant for these questions, we interviewed the person (referred to as the secondary or financial respondent) within the household best able to provide this information.

Prior to the start of each interview, interviewers described the study and what participation entailed and asked participants to provide informed consent for participation. Interviewers obtained consent orally, acting as witnesses to the informed-consent process. In addition to obtaining consent for the survey interview, interviewers asked participants to provide consent for other survey activities, including the collection of anthropometric measurements and biomarkers, obtaining a copy of the participant's administrative records related to enrollment in government programs, and obtaining a copy of records from health providers. Interviewers requested written consent for participation in these activities. All study materials and informed-consent documents were written at an appropriate reading level using simple language and were provided in both Spanish and Mayan. Interviewers reviewed the informed-consent documents with the respondent and the respondent's family, allowing the respondent to ask questions before signing the forms. Interviewers gave each respondent a copy of his or her informed-consent documents.

Field staff interviewed respondents in their homes at a time convenient for the respondents. Interviews in Spanish took an average of two hours, including informed consent and anthropometric measurements. Interviews in Mayan took an average of 2.5 hours. Survey interviewers used small laptops (netbooks) for the computer-assisted personal interviewing (CAPI) administration.

All surveys were programmed using a RAND-developed survey system called MMIC™ (Multimode Interviewing Capability).[4] Field supervisors used laptop computers to manage the sample, assign cases to interviewers, compile the information gathered on a daily basis, run productivity reports, and document problems in the field. To protect the confidentiality of all data collected, we used a double encryption protocol: Netbooks and supervisor laptops were password-protected and had whole-disk encryption. In addition, all information contained on the netbooks and laptops was encrypted automatically as the data were collected. This double encryption protected the integrity of the data and prevented any data loss that could occur should a computer be stolen or lost. Data from the netbooks and supervisor laptops were compiled on a daily basis and transmitted by Internet using a secure data transfer protocol to a server located in the evaluation program's office in Merida, Yucatan. The server was backed up locally on a daily basis. Remote backups from RAND's offices in Santa Monica occurred on a periodic basis.

Quality Control

To ensure the quality of information collected in the field, we designed a series of validations and quality controls, which were handled by the operational coordinators and RAND staff. For more-detailed information about the quality-control process, see Aguila, Kapteyn, et al. (forthcoming). We added DBS samples to the data collection in Merida. To monitor the quality of the DBS samples, field supervisors, as required, routinely check the DBSs collected by interviewers and provide feedback and retraining as necessary. Figure 3.5 shows a supervisor

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[4]   More information about MMIC is available from MMIC (undated); for more details about how it was used in this research project, see Aguila, Kapteyn, et al. (forthcoming).

verifying that a participant's interviews were completed correctly. In addition, the survey coordinator and survey director randomly check the cards on a periodic basis to ensure the quality of the DBSs collected. All data-collection staff received training reviews, typically before each new phase of the project. As part of this training, all data collectors were required to demonstrate proficiency in the collection of all biomarkers (including DBSs) and anthropometric measurements.

Concluding Remarks

This report describes the design, implementation, and evaluation of a noncontributory pension program in Merida, Yucatan. Many of the processes we describe are identical to those we discuss in Aguila, Kapteyn, et al. (forthcoming), on evaluation of this program in Valladolid. Our main objective was to provide information to those interested in this topic and to offer research tools to guide future policymaking related to older adults both in Mexico and around the world. Future reports and other publications will analyze data from these evaluations.

In this report, we describe the implementation and evaluation of a noncontributory pension program in Merida. Key features include the following:

- the partnership between the government of the state of Yucatan and the RAND Corporation. This contributed essentially to the accomplishment of project goals and research objectives and benefited both partners. In addition, the collaboration of international academic institutions and research centers enhanced the accuracy and success of the evaluation.
- the simultaneous combination of program implementation and evaluation
- changes to the survey. These obtained information about the educational performance (school enrollment and attendance and time spent in educational activities) of children living in the household of the older adult and about mortality expectations. Other innovations include collection of DBSs to detect undiagnosed diseases in respondents and the payment of MXN $50 as an incentive for participation in the survey.
- randomized controlled trials in Merida, each with a treatment and control group. In the first experiment, recipients received a cash benefit. In the second, beneficiaries received the pension through direct deposit to a bank account linked with a debit card.

The program took on considerable challenges, including the following:

- constructing and sustaining a logistical and financial plan to give continuous and complete support to the team
- maintaining the viability of the scientific approach in the implementation of the evaluation study while being responsive to the interests, needs, and priorities of the Yucatan state government. The partnership between RAND and the state government helped facilitate this. This partnership holds promise for future collaboration on research projects that could contribute to other policymaking recommendations.
- using the foundation established by this project as a way to strengthen and expand the capacity-building efforts of the RAND Center for Latin American Social Policy (CLASP)

that were developed with other institutions throughout the implementation of the pension program and the evaluation study.

With these two reports (the present report and Aguila, Kapteyn, et al., forthcoming), we completed part of the descriptive documentation of the operational work of this project. We plan to produce technical reports with a more detailed description about imputations, nonresponse and attrition, informed consent for illiterate populations, mortality expectations for illiterate populations, geographic targeting, a pilot test to implement a noncontributory pension program using debit cards, and implementation of a noncontributory pension program in urban areas. Older adults interviewed under the program hope that their participation in these kinds of programs will contribute to improving the living conditions of future generations (see Figure 4.1). We will also produce other publications about the data analysis and the dissemination of the study results. Depending on funding availability and research purposes, we will assess whether to continue data collection.

Figure 4.1
Health, Wealth, and Public Policy Present Challenges to Older Adults

SOURCE: Mariana Mussi. Used with permission.

Appendixes

Appendixes for this technical report are available online:
http://www.rand.org/labor/centers/clasp/research/projects/social-security-program.html

Appendix A. English-Language Surveys

A.1 Phase II
- A.1.1 Baseline Questionnaire Individual-Level Survey
- A.1.2 Biomarkers Baseline Questionnaire Individual-Level Survey
- A.1.3 Listing Baseline Questionnaire Household-Level Survey
- A.1.4 Proxy Baseline Questionnaire Individual-Level Survey
- A.1.5 First Follow-Up Questionnaire Individual-Level Survey
- A.1.6 Biomarkers First Follow-Up Questionnaire Individual-Level Survey
- A.1.7 Cover Screen First Follow-Up Questionnaire Household-Level Survey
- A.1.8 Proxy First Follow-Up Questionnaire Individual-Level Survey
- A.1.9 Exit First Follow-Up Questionnaire Individual-Level Survey
- A.1.10 Second Follow-Up Questionnaire Individual-Level Survey
- A.1.11 Biomarkers Second Follow-Up Questionnaire Individual-Level Survey
- A.1.12 Cover Screen Second Follow-Up Questionnaire Household-Level Survey
- A.1.13 Proxy Second Follow-Up Questionnaire Individual-Level Survey
- A.1.14 Exit Second Follow-Up Questionnaire Individual-Level Survey
- A.1.15 Pharmacy Baseline Questionnaire Individual Level Survey
- A.1.16 Establishment Baseline Questionnaire Individual Level Survey
- A.1.17 Pharmacy First Follow-Up Questionnaire Individual Level Survey
- A.1.18 Establishment First Follow-Up Questionnaire Individual Level Survey

A.2. Phase III
- A.2.1 Baseline Questionnaire Individual-Level Survey
- A.2.2 Biomarkers Baseline Questionnaire Individual-Level Survey
- A.2.3 Proxy Baseline Questionnaire Individual-Level Survey
- A.2.4 Cover Screen Baseline Questionnaire Household-Level Survey
- A.2.5 Listing Baseline Questionnaire Household-Level Survey
- A.2.6 First Follow-Up Questionnaire Individual-Level Survey
- A.2.7 Biomarkers First Follow-Up Questionnaire Individual-Level Survey
- A.2.8 Proxy First Follow-Up Questionnaire Individual-Level Survey

- A.2.9 Cover Screen First Follow-Up Questionnaire Household-Level Survey
- A.2.10 Exit First Follow-Up Questionnaire Individual-Level Survey
- A.2.11 Second Follow-Up Questionnaire Individual-Level Survey
- A.2.12 Biomarkers Second Follow-Up Questionnaire Individual-Level Survey
- A.2.13 Cover Screen Second Follow-Up Questionnaire Household-Level Survey
- A.2.14 Proxy Second Follow-Up Questionnaire Individual-Level Survey
- A.2.15 Exit Second Follow-Up Questionnaire Individual-Level Survey

Appendix B. Spanish-Language Surveys

B.1. Phase II
- B.1.1 Baseline Questionnaire Individual-Level Survey
- B.1.2 Biomarkers Baseline Questionnaire Individual-Level Survey
- B.1.3 Listing Baseline Questionnaire Household-Level Survey
- B.1.4 Proxy Baseline Questionnaire Individual-Level Survey
- B.1.5 First Follow-Up Questionnaire Individual-Level Survey
- B.1.6 Biomarkers First Follow-Up Questionnaire Individual-Level Survey
- B.1.7 Cover Screen First Follow-Up Questionnaire Household-Level Survey
- B.1.8 Proxy First Follow-Up Questionnaire Individual-Level Survey
- B.1.9 First Follow-Up Exit Questionnaire Individual-Level Survey
- B.1.10 Second Follow-Up Questionnaire Individual-Level Survey
- B.1.11 Biomarkers Second Follow-Up Questionnaire Individual-Level Survey
- B.1.12 Cover Screen Second Follow-Up Questionnaire Household-Level Survey
- B.1.13 Proxy Second Follow-Up Questionnaire Individual-Level Survey
- B.1.14 Exit Second Follow-Up Questionnaire Individual-Level Survey
- B.1.15 Pharmacy Baseline Questionnaire Individual Level Survey
- B.1.16 Establishment Baseline Questionnaire Individual Level Survey
- B.1.17 Pharmacy First Follow-Up Questionnaire Individual Level Survey
- B.1.18 Establishment First Follow-Up Questionnaire Individual Level Survey

B.2. Phase III
- B.2.1 Baseline Questionnaire Individual-Level Survey
- B.2.2 Biomarkers Baseline Questionnaire Individual-Level Survey
- B.2.3 Proxy Baseline Questionnaire Individual-Level Survey
- B.2.4 First Follow-Up Questionnaire Individual-Level Survey
- B.2.5 Biomarkers First Follow-Up Questionnaire Individual-Level Survey
- B.2.6 Proxy First Follow-Up Questionnaire Individual-Level Survey
- B.2.7 First Follow-Up Exit Questionnaire Individual-Level Survey
- B.2.8 Second Follow-Up Questionnaire Individual-Level Survey
- B.2.9 Biomarkers Second Follow-Up Questionnaire Individual-Level Survey
- B.2.10 Proxy Second Follow-Up Questionnaire Individual-Level Survey
- B.2.11 Exit Second Follow-Up Questionnaire Individual-Level Survey

Appendix C. Mayan-Language Surveys

C.1 Phase II
- C.1.1 Baseline Questionnaire Individual-Level Survey
- C.1.2 Proxy Baseline Questionnaire Individual-Level Survey
- C.1.3 First Follow-Up Questionnaire Individual-Level Survey
- C.1.4 Cover Screen First Follow-Up Questionnaire Household-Level Survey
- C.1.5 Proxy First Follow-Up Questionnaire Individual-Level Survey
- C.1.6 First Follow-Up Exit Questionnaire Individual-Level Survey
- C.1.7 Second Follow-Up Questionnaire Individual-Level Survey
- C.1.8 Cover Screen Second Follow-Up Questionnaire Household-Level Survey
- C.1.9 Proxy Second Follow-Up Questionnaire Individual-Level Survey
- C.1.10 Exit Second Follow-Up Questionnaire Individual-Level Survey

C.2 Phase III
- C.2.1 Baseline Questionnaire Individual-Level Survey
- C.2.2 Proxy Baseline Questionnaire Individual-Level Survey
- C.2.3 First Follow-Up Questionnaire Individual-Level Survey
- C.2.4 Proxy First Follow-Up Questionnaire Individual-Level Survey
- C.2.5 First Follow-Up Exit Questionnaire Individual-Level Survey
- C.2.6 Second Follow-Up Questionnaire Individual-Level Survey
- C.2.7 Proxy Second Follow-Up Questionnaire Individual-Level Survey
- C.2.8 Exit Second Follow-Up Questionnaire Individual- Level Survey

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CONAPO—*See* Consejo Nacional de Población, or National Population Council.

CONEVAL—*See* Consejo Nacional de Evaluación de la Política de Desarrollo Social.

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