Effects of the global financial crisis on the food security of poor urban household; CASE STUDY ROSARIO, ARGENTINE

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This case study is one of **five case studies** implemented in the context of the study on the effects of the global crisis on the food security of poor urban households (which are accessible on line at www.ruaf.org and www.idrc.org), including next to Rosario:
- Mattah, Agbeko P.D. and and Jonas Kofi Akpakli. Effects of the global financial crisis on the food security of poor urban households: CASE STUDY **ACCRA, GHANA**; Humanity Focus Foundation, Accra and RUAF Foundation, Leusden, July 2010.
- Sanchez, Claudia Marcela and Yibby Forero, Effects of the global financial crisis on the food security of poor urban households: CASE STUDY **BOGOTA, COLOMBIA**; IPES-Colombia, Bogota and RUAF Foundation, Leusden, July 2010.
- Atukorala, Sunethra, Pulani Lanerolle and Angela de Silva. Effects of the global financial crisis on the food security of poor urban households: CASE STUDY **COLOMBO, SRI LANKA**; Faculty of Medicine, University of Colombo, Sri Lanka and RUAF Foundation, Leusden, July 2010
- Mwitwa Jacob and Phillimon Ng'andwe, Effects of the global financial crisis on the food security of poor urban households: CASE STUDY **KITWE, ZAMBIA**, School of Natural Resources, Copperbelt University, Kitwe and RUAF Foundation, Leusden, July 2010

The **Synthesis report** includes a comparative analysis of the five case studies and main conclusions and recommendations: *Prain, Gordon, Effects of the global financial crisis on the food security of poor urban households: Synthesis report on 5 city case studies, RUAF Foundation, Leusden, July 2010)*

CONTENTS

1. INTRODUCTION

The case study presented here is part of the "Study on the effects of the global financial crisis on the food security of poor urban households" that was undertaken in 5 cities by the RUAF Foundation on request of -and in collaboration with- the International Development Research Centre (IDRC) in Canada and UN Habitat, Nairobi.

The main objective of this study is to generate data that can help understand the extent to which rising food prices and the financial crisis are impacting on malnutrition levels in cities and how the policy and institutional context has been mitigating or exacerbating problems of food insecurity. It is hoped that the study will provide local actors with valuable information for the design of adequate policies and programmes to counteract the effects of the financial and food crisis.

An appraisal of the food security of households was conducted in selected low and middle income neighbourhoods of 5 cities in different continents through both quantitative and qualitative analysis, including Bogota (Colombia), Rosario (Argentina), Accra (Ghana), Kitwe (Zambia) and Colombo (Sri Lanka).

Although hunger is most often associated with low agriculture output, drought, and famine in rural areas, previous studies have shown that hunger is not always related to food production or availability; rather, in urban areas, other factors, such as income level, inadequate access to basic services and poor living conditions, play more significant roles. In cities, hunger is usually a consequence of people's inability to purchase food that it's both sufficient and nutritious.
Moreover, food represents about 60-80 percent of consumer spending by poor urban households in developing countries. Thus, variations in income or food prices directly translate into rising rates of malnutrition in urban areas.

The financial crisis has the potential to affect developing countries and the urban poor through economic retrenchment, negative effects on the terms of trade with the rich world and consequent job losses, especially in cities which are more directly embedded in the global economy. Because of the stage-wise nature of much household migration (Natali 2009), the reduced remittances from family members working abroad can disproportionately affect urban households.
This financial crisis came at a time when most countries are still struggling with the impacts of rising food and fuel prices. Despite the decline in international cereal export prices from their peaks in the first half of 2008 and policy responses by governments, food prices have remained at high levels in many developing and low-income-food-deficit countries compared to five years ago. It is estimated by the World Bank that the high food and fuel prices alone have increased the number of extremely poor in the world by at least 100 million. In many cases, domestic prices are still higher than before and where they have declined, price reductions have been relatively much less than those in the international markets.

Among those at greatest risk are the urban poor that are dependent on the market to access food and since the share of food in their total expenditures is much higher than that of wealthier sections of the urban population. Especially female-headed urban households are vulnerable to the impacts of the financial crisis and rising food and fuel prices.

Against this background, UN Habitat and IDRC decided Mid 2009 to undertake this study in order to generate more data on the effects of the financial crisis and rising food prices on the urban poor and to provide local actors with valuable information for the design of adequate policies and programmes to counteract the effects of the financial and food crisis.

Four types of data were collected for this study:

- Information on the economic, policy and institutional context affecting food security, both pre-dating the crises and as positive or negative measures taken since the crises began.
- Data on the current livelihood assets and strategies of households in low and middle income areas of the case cities which reflect responses to external stresses, shocks and institutional circumstances and to the households' internal needs and constraints. These external and internal factors both pre-date and are directly related to the food price and the financial crises.
- Perceptions of survey respondents and Focus Group Discussion participants about how these recent crises have affected household livelihoods and what coping strategies they have explicitly adopted to secure their livelihoods, especially those related to food consumption.
- Anthropometric data measuring current nutritional "outcomes" among under six-year olds and fertile women between 15 and 49 years. Although the livelihood practices and coping strategies affecting food consumption which households have been pursuing contribute importantly to these nutrition "outcomes", there are other contributions, such as diseases and environmental circumstances which have not been included in the survey. In order to understand whether these nutritional outcomes have worsened since the crisis, in other words, whether the livelihood practices and coping strategies adopted by households since the food price and financial crises have had a more severe effect on nutrition the results of the anthropometric studies are compared as far as possible with earlier nutritional assessments.

In this report, the implementation and results of the case study in Rosario, Argentina are represented.

The results of the comparative analysis of the outcomes of the 5 case studies are presented in the "Synthesis report".

2. ORGANISATION AND METHODOLOGY OF THE STUDY

2.1. Composition of the research team

In order to carry out the study, a multidisciplinary team was formed by a senior researcher[1], who headed the local team. She was in charge of adapting the survey form, training of the data collectors, monitoring the survey application, conducting the focus group discussions, interviewing key actors, and the data analysis and report writing.

The team further included a consultant specialized in Nutrition[2], a consultant specialized in Health Economics[3] and an assistant researcher[4]. The specialist in Health Economics analyzed the socio-economic effects of the crisis on the health conditions of the population. The assistant researcher was in charge of note taking in the focus groups as well as of the organization of these meetings, and the collection and analysis of socio-economic data from secondary sources. A researcher with experience in the field of Epidemiology and Statistics[5] was in charge of population sampling, data base design and survey processing. A researcher with experience in the field of Medicine[6] was in charge of field work supervision within the framework of the survey implementation and the systematization of qualitative data of secondary and primary sources regarding relevant social policies.

2.2 Translation and adaptation of the survey

The translation of the survey format and its adaptation to the local conditions was carried out between July and October 15, 2009. During this period, the questionnaire format and operational details of its application were discussed among the RUAF Foundation and the Argentinean team and the questionnaire was adapted to the local context. The improved final version of the survey format was translated into Spanish (see Annex 1).

The adaptation process took more time than initially expected and led to a delayed start of the field activities and subsequent processing and analysis activities. However, the discussions in July-September led to a number of improvements that benefited the survey in its accuracy and the unification of various operational criteria (e.g. eligibility criteria of the households, the definition of household head and the incorporation of a question assigned to identify the pregnancy condition and pregnancy month applied to eligible women).

2.3 Sampling

Following the terms of reference, two low income neighbourhoods in the city were selected: one with a population with high socio-economic vulnerability and another with medium vulnerability. The sampling size was 300 households per neighbourhood. The sampling method used was systematic multistage sampling: 1. Demarcation and selection of neighbourhoods, and 2. demarcation and selection of clusters.

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Phase I: Selection and demarcation of neighbourhoods

The following steps were taken in order to develop this phase:
a. Identification of areas with high and medium socio-economic vulnerability. In order to do this, the percentage of the population with unmet basic needs (NBI: Necesidades Básicas Insatisfechas)[7] per census tracts and units (*radio y fracción censal*) was calculated by using the last available official census data (INDEC, 2001). Since 2001 no new data have been collected or updated projections per census tract have been made.
b. Selection of the neighbourhoods with areas of high and medium socio-economic vulnerability. After consulting with decision makers from the Municipal Health Secretary (who -by the way- considered it urgent and feasible to carry out this survey) Tio Rolo and Santa Lucia neighbourhoods were selected from among all neighbourhoods which met with the selection criteria, also taking into account: 1. the existence of local organizations and neighbourhood leaders who would be potentially receptive participants in the survey and 2. The fact that the research team worked in both neighbourhoods between 2007 and 2008 in the framework of the research "Análisis de la gobernanza de los procesos de implementación de políticas de atención primaria de la salud en América Latina" (http://www.mgsss.com.ar/index.html) and thus already was familiar with local leaders and the living conditions in these neighbourhoods, facilitating a successful implementation of the survey.
c. Feasibility Analysis. The total number of households per neighbourhood and the number of households with children in the age group 0-5 years was determined with help of INDEC, 2001. This, while knowing that from 2001 to date there has been a considerable growth of population in both neighbourhoods. The figures found were considered as a minimum figure for the sampling size that showed the feasibility to find at least 300 homes with children in the age group 0-5 years. It is important to make clear that such data was not used to calculate the size of the sample as it was established in the TOR.
d. Demarcation of boundaries of the areas defined as neighbourhoods or "clusters" (first sampling units). As these neighbourhoods do not make up an administratively recognized territory unit, their boundaries do not appear in cadastral registers. As a consequence, their geographical demarcation was carried out by consulting with local key informants.

Table 1 Total population, households and population with NBI per neighbourhood

Area	Total Population	% households NBI	% population NBI
Santa Lucía	5541	34.9	34.0
Tío Rolo	1723	17.9	21.0
Rosario	1,111,142	14.7	14.7

Source: INDEC, 2001

Phase II: Demarcation and selection of clusters

Cadastral maps exist, demarcating cadastral clusters. However, in areas with socioeconomic highly vulnerable population certain clusters – defined as natural groupings of houses- don't follow these maps, while other blocks don't appear in the maps. That is the reason why it was necessary to track the area in order to identify the clusters which were not marked in the cadastral maps. The clusters which were separated by a narrow street or alley were not considered as a unit and were identified with a number and letters to identify the sub-units.

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[7] A person is considered to have "unmet basic needs" when she/he lives in a household that complies with at least one of the following conditions: more than three people living in the same room, accommodation in a low quality house or appartment, the house doesn't have a toilet with flushing system, there is a child in the family between 6 and 12 years old who doesn't attend school.

The maps were obtained through the Santa Fe Provincial Institute of Statistics and Census. In cooperation with local stakeholders "surveyable" blocks (houses, apartments) blocks that did not appear in the maps were added to the maps and "unsurveyable" blocks (sports fields, factories, schools, agricultural land, vacant lots, etc.) were demarcated.

Considering the data derived from a survey carried out by the research team in 2007 in the neighbourhoods in question in average 82 houses per "surveyable" block are encountered with in average 15% of households have children in the age group of 0-5 years (13% in Tío Rolo and 18% in Santa Lucía). Accordingly, it was estimated that in each block there were approximately 13 eligible households. Taking into account the existing possibility of rejection to the interview or absence of the designated adult in charge of the minor at the time of the visit, a correction to the number of blocks to be selected was applied, estimating the total number of potential households to be surveyed per cluster as twelve. In this way, for each of the areas twenty-five clusters and five additional clusters (to be used in case the established quota could not be met) were randomly selected and numbered.

Table 2 Selected blocks per neighbourhood

Blocks	Santa Lucía	Tío Rolo
Total # of blocks	47	38
Of which not surveyable	10	10
Of which surveyable	37	28
Blocks selected	25	25
Additional blocks selected	5	3

2.4 Selection and training of the data collectors

Data collectors were selected from an open call upon presentation of résumés by professionals and/or students in the last year of the degree course of nutrition and social work. Such call was spread by virtual media within several Universities of Rosario with degrees in Nutrition, Social Work and other areas related to social sciences. A pre-selection of résumés was carried out by taking into account the experience in socio-economics, nutrition and health data collection as well as the work experience in low-income areas. The candidates who were selected were called for individual interviews. The interviews took place on August 27 and September 11. Eight people were selected within this framework. These people were divided in four teams; each of them consisting of a professional or advanced student in Social work and another in Nutrition.

Figure 1 Data collectors in Santa Lucía neighbourhood

The data collectors attended a complete day training which was held on October 13, 2009. They learned about the survey implementation and collection of anthropometric measures. In order to conduct an accurate survey, an instructional manual was designed to be taken as reference and advise for the data collectors (Annex 2). This manual was handed out to the data collectors before the training day. The purpose of the instructional manual was to provide the theoretical and practical tools and standardize concepts and criteria in order to guarantee a good performance in the field work.

2.5 Equipment

The following equipment was used in the children and women measurements.
- UNICEF material so114400 height rod. Fazzini s.r.l code s208.
- UNICEF electronic scale 890. Uniscale. Seca.
- Biotécnica pediometer endorsed by OPS Argentina and used for nutrition surveys in Buenos Aires province.

Figure 2 Measurement of length in a Santa Lucia home

It proved notoriously difficult to acquire the equipment due to the Argentina's lack of equipment which would comply with the detailed criteria mentioned in the terms of reference and the difficulties to import them. In spite of the previous, thanks to the help by UNICEF-ARGENTINA and Dr. Zulma Ortiz, UNICEF officer, who belongs to the "Programa de Políticas Públicas de Inclusión y Equidad" 4 scales and 4 stadiometers were obtained on loan. The paediatric stadiometers which were used were acquired through the regional office of the Panamerican Health Organization in Argentina with help of Dr. Salvador García Jiménez, who is a Consultant for the Immunization Programme of the Panamerican Health Organization (OPS).

2.6 Survey data gathering

In order to improve the feasibility of the operation, informative meetings were held before the beginning of the field work, with the local teams in the Health Centres, CRECER Centres and with the leaders of each neighbourhood. Likewise, posters were posted in the neighbourhoods announcing the survey activities[8] (figure 2).

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[8] Poster designed by Olga Torres. Graphic Designer. Colombia.

Figure 3: Poster

Before the start of the field work, the field work coordinator and the data collectors explored the selected neighbourhoods, identified the clusters to be surveyed and counted the houses in each cluster. Data collectors were provided with a map indicating the selected clusters and the five additional blocks in each of the two neighbourhoods and a list of the same. The route to be followed through the neighbourhood and the order of the blocks / households to be interviewed was also determined.

On October 14 a pretesting was carried out. Since the questionnaire format and field work did prove to work well, on October 15 only minor adjustments were made and field work started on October 16. The field work extended till November 3, 2009.

It was determined that the data collectors would go to each selected cluster and survey every household[9] which had at least one child in the age group of 0-5 years old.

The procedure to cover each selected cluster was to go around the block starting at the first street which would appear in the description of the block at the left and continuing clockwise. In case no respondent was encountered in a house the neighbours were asked whether this household had any children in the age of 0-5 years. If so the house was marked as "pending" and maximum two follow up visits were made to this house. If this household did not have children in that age group this house was discarded.
The questions asked in the survey were directed to the adults in charge of the minors. Exceptionally, other people present in the household participated in the survey. In very few cases the data collectors found the head of the household present at the moment of the interview.

As a token of gratitude to each surveyed household, a 1 page report was given to them with the weight and height of the children and women measured and blank spaces where the families could register the weight and height of the other household members.

To guarantee the validity and reliability of the data, the data collectors were constantly supported and monitored during the data collection.

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[9] A household was defined as a group of people (related or not among each other) sharing the same dwelling and associated to provide each other their food requirements.

The data collectors were protected by a personal insurance against accidents and death during the field work time.

2.7 Data entry and processing

Data entry was carried out between October 23 and November 9 by an advanced Statistics student.

Between October 16 and 22, two data bases related to SPSS 11.0 were build and tested:
a. Households. This data base includes information about 600 households: household head, socio-economic features of the households and its strategies to cope with the crisis.
b. Individuals. The total number of records in this database is 2817 and contains all data related to individuals like the anthropometric measurements.

For the analysis of data, first simple global frequencies of the variables in the households and individuals data bases were calculated.

Subsequently, summary variables were calculated with respect to:
- Socio-economic conditions
- Demographic conditions
- Effects of the financial / food crisis
- Coping strategies of the households
- Policy/institutional responses to the financial / food crisis
- Food consumption (per group of food items)

Then the anthropometric data were used to calculate the Body Mass Index (BMI) for women and weight-for- height (WAZ), height-for-age (HAZ), weight-for-age (WHZ) for children in order to define the nutritional status of the children under 5 and women of 15 to 49 years old in the two neighbourhoods, making use of the WHO software Anthro 3.0 – Nutritional survey[10]. Out of the 608 women in the age group 15 – 49, 12 women could not be included in the BMI calculations for not having their weight registered and 39 women were excluded for being pregnant. As regards the 772 children in the age group of 0-5 years, 97.8% were registered for weight, 96% for height and 95% for weight and height.

Further bi and multi variate data analysis was carried out to analyze the relations between the anthropometric results and the various summary variables indicated above, determining OR, Chi2 and p-value to estimate associations between variables.

2.8. Complementary data gathering: expert interviews, focus groups discussions, systematic observation and secondary data collection

Additional primary and secondary data was collected to strengthen the survey's results interpretation and investigate the characteristics of the institutional strategies adopted by the government to counteract the nutritional effects of the global financial crisis.

The effects of the crisis on poor households were characterized from an economic and financial perspective through **review of secondary data** regarding:
- Development of gross domestic product [Source: Instituto Nacional de Estadística y Censos (INDEC)].

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[10] Software disponible en: http://www.who.int/childgrowth/software/en/

- Evolution of unemployment rate [Source: Instituto Nacional de Estadística y Censos (INDEC). Encuesta Permanente de Hogares (EPH)]
- Evolution of the population under poverty and indigence levels. [Source: Instituto Nacional de Estadística y Censos (INDEC). Encuesta Permanente de Hogares (EPH)]
- Evaluation of the costs of the basic food basket [Source: Instituto Nacional de Estadística y Censos (INDEC). Encuesta Permanente de Hogares (EPH)]
- Primary goods production and exportation [Source: Instituto Nacional de Estadística y Censos (INDEC)].
- Social policies [Source: Newspapers; M.S. Ernesto Bascolo National Director Health Economics Argentine National Ministry of Health 2008-2009].

Through a **revision of public policies**, official data, nutritional studies at a national, provincial and municipal level and interviews to decision makers, information about the effects and official responses to the crisis by the city and the provincial government was collected.

Expert interviews: in this framework, between August and November 2009 also Dr. Nora Redondo (Maternal and Child Provincial Director, Santa Fé Provincial Health Ministry), Dr. Horacio Crespo (Primary Health Care Director of the Municipal Public Health Secretary) and members of the Municipal Direction of the CRECER Program of the Municipal Social Aid Secretary were interviewed. Key questions discussed included:

a) What have been the changes in the prices of basic food items in the last two years? What have been the factors that caused the price hikes? What should/could one do to reduce the food price fluctuations?
b) Have occurred any labour conflicts or riots that stimulated to take political measures to respond to the food and economic situation in the city?
c) Which policies have been designed to mitigate the effects of the financial crisis and the rising food prices at national and provincial level?
d) Since when?
e) What have been the impacts, effectiveness and sustainability of these policies?

Focus groups discussions: In each of the two surveyed neighbourhoods a group discussion (figure 3) was carried out with the intention of collecting qualitative information about the effects and responses to the crisis. Local key informants from the municipal and provincial health centres, district deputy officers of the Primary Health Care Department, local key informants of municipal social aid programmes and other local informants associated with neighbourhood meal centres, schools, and religious institutions took place in these discussions that were held in January 2010 in the health centre of each neighbourhood.

The main topics discussed during these meetings were:
- Characterization of the neighbourhood (development history, available basic services, sub zones, recent changes, etc)
- Population (characteristics, where from, way of living, sources of income)
- The crisis of 2008 (what effects of the crisis for them? What strategies did the people apply to cope with the crisis?)
- Institutional responses to the crisis (what have the institutions done to alleviate the effects of the crisis in this neighbourhood?)
- Nutrition (what do people eat in this neighbourhood, Where does the food come from? Who is preparing the food in the household? Any families that are scavenging for food here?
- Food production: Do people grow food or keep animals? If so where and what do they produce. Are CRECER and NUTRIR MÁS working here with food production projects? If so, do people participate?

- Income and expenditures: Are the survey results reliable as far as income and expenditures data is concerned? How can people survive that hardly have any income?
- Nutritional status of the households: What are the characteristics of the families that have underfed members? What factors are playing a role apart from the food crisis?

Figure 4. Focus Group Discussion in Tío Rolo

Lastly, as a response to the requirement put by Henk de Zeeuw and Gordon Prain in mid January 2010, a **systematic observation on local food production** in both neighbourhoods was conducted.

2.9 Dissemination of results

In December 12, 2009 the draft research findings were presented to the health municipal and provincial decision makers and more than 200 public health system decision makers, managers and practitioners from more than ten Argentinean municipalities. Reports and oral presentations about the main findings of the study per neighbourhood were disseminated among the participants. The main results of the study were disseminated by a policy brief prepared by the research team (Available at: http://www.mgsss.com.ar/index.html) and an article in the newspaper La Capital (available at: http://www.mgsss.com.ar/index.html.)

3. RESULTS OF THE STUDY

3.1 The socio-economic effects of the global financial crisis in Argentina

Developing countries are characterized by their vulnerability to external factors. Changes in world market prices (by their condition of primary product exporters and importers of capital goods) as well as the juncture of its main business associates, particularly affect them. Nonetheless, in Argentina there has been a particular situation before the 2008 global financial crisis that is detailed below.

In order to study the influence of the current global financial crisis on Argentine economy, it is necessary to compare it with the crisis that affected the country in 2001 and 2002. The 2001 and 2002 crisis was not only an economic crisis, but also a financial, political, institutional and structural one, mainly caused due to internal factors, with the aggravating factor of the interruption of foreign currency revenue due to the lack of external investment. The years 2001 and 2002 were characterized by a steep fall of production level and high levels of unemployment. The country had entered into a recession by 1998, when the Gross Domestic Product (GDP) started to descend. In 2000 GDP decreased with 0.8%, 4.4% in 2001 and 10.9 % in 2002 (Figure 5).

Figure 5: Evolution of the Argentinean Gross Domestic Product
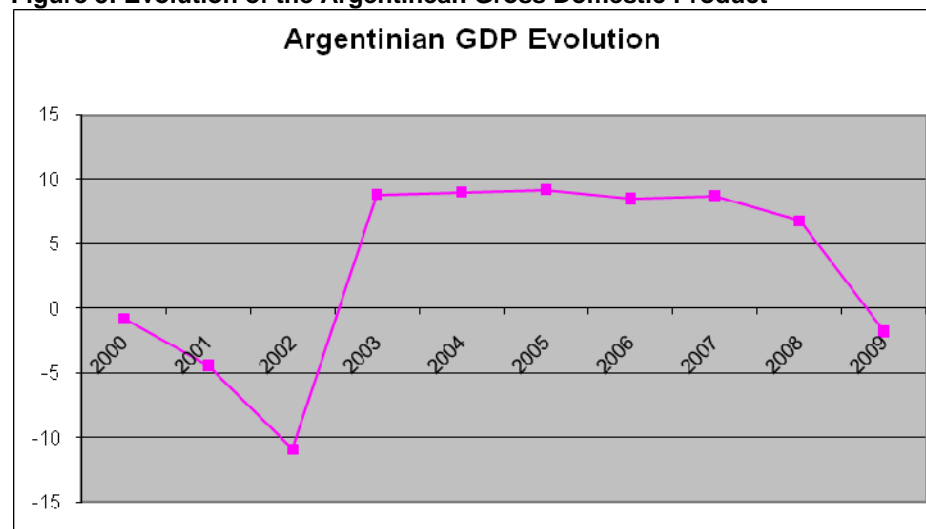
Source: Elaborated from official data published by the Instituto Nacional de Estadística y Censos (INDEC)

In 2000, the unemployment level was already over 15% further rising to 21.5% in the second semester of 2002. The Permanent Household Survey (EPH), carried out continuously in the country's biggest urban conglomerates by the National Institute of Statistics and Censuses (INDEC), showed that in the second semester of 2001 15.7% of the population of Rosario lived below the indigence line (extremely poor)[11], and 41.2% below the poverty line[12]. In 2002, the situation had worsened, with 29.6% and 60.9% of the citizens below the indigence and poverty line respectively (Figure 6). During this period there were supermarket lootings and social movements were formed that pressed for improvement of the quality of life of the poor population.

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[11] Households below the "indigence line" have not enough income in order to acquire a basic food basket needed to cover minimum energetic and protein needs. Such households are considered extremely poor.
[12] Households below the "poverty line" have not enough income to meet a set of essential basic needs (TBB total basic basket), including: food, clothing, education, health, etc.). Such households are considered "poor"

Figure 6: Population below Poverty and Indigence Line
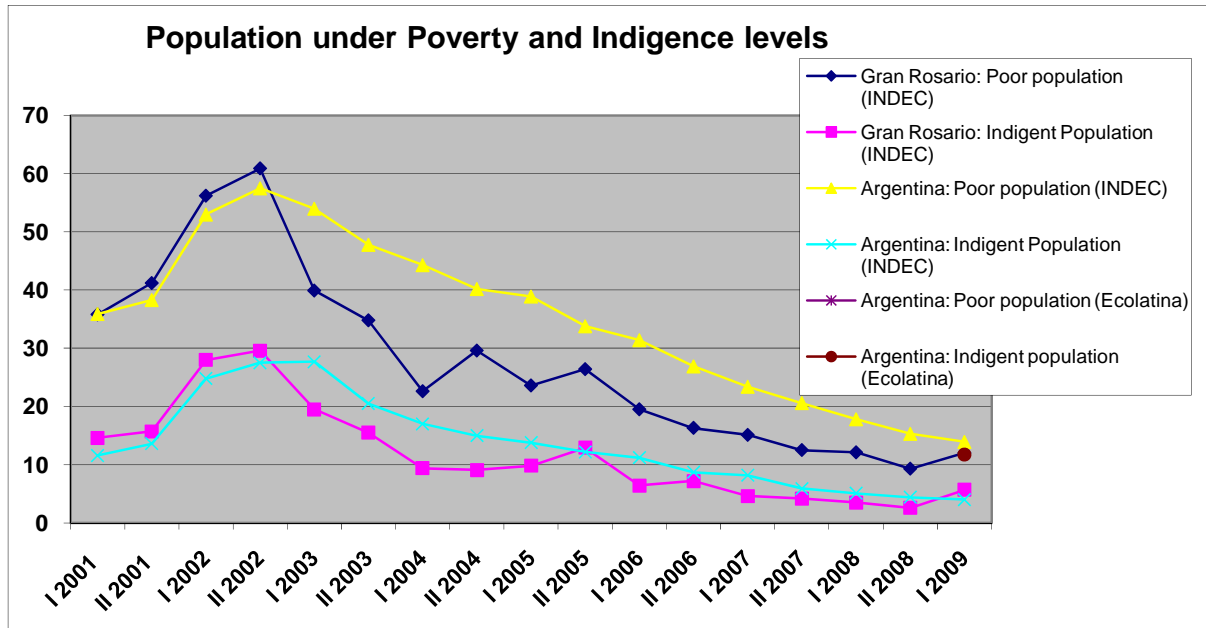
Source: Elaborated from data of the Permanent Household Survey, Instituto Nacional de Estadística y Censos (INDEC)

Figure 7 shows that the most abrupt increase of the basic food basket and total basic basket price occurred between 2001 and 2002 with a continuous upward trend up to date. In the 2000-2001 time period, the Basic Food Basket cost grew by 75%.

Figure 7: Evolution of the costs of the Basic Food Basket
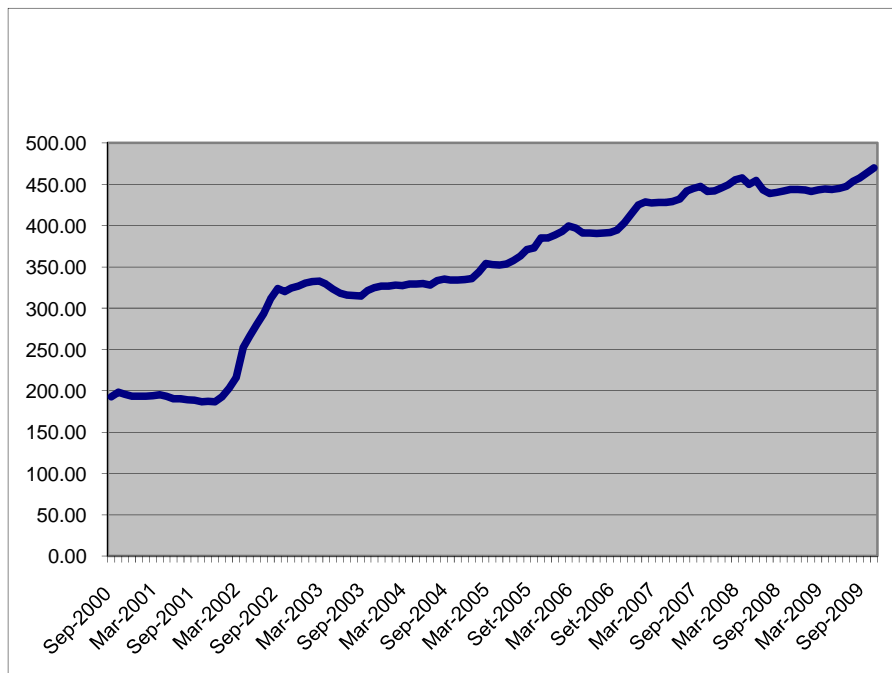
Source: Elaborated from data of the Permanent Household Survey, Instituto Nacional de Estadística y Censos (INDEC)

GDP has been on the rise since 2003 in average at a rate of 8.5% annually, but showing a down turn in 2008 that continues in 2009 (Figure 5)[13]. In 2008 the unemployment in 2008 rose to 7% and 8% (half of the figure for 2002); In that year, according to INDEC, 5.7% of the population of Rosario was below the indigence line and 12% below the poverty line (at national level, the figures are 4% and 13.9% respectively). According to INDEC, between November 2008 and 2009 the value of the Basic Food Basket increased with 6% and the Total Basic Basket with 8%. These figures are substantial but much lower than the very high levels in 2001/2002.

However, one should be aware that important sectors of journalists, professionals and politicians have questioned the truthfulness of the data presented by INDEC for the last two years especially those related to the Consumer Price Index. It is generally believed that these data have been manipulated in a direction desired by the national government. Several private consultants have carried out parallel estimates. For example, Ecolatina (headed by former Minister of Economy Dr. Roberto Lavagna) came to the conclusion that (at national level) the population below the indigence line reached to 11.7% and the population below the poverty line to 31.8 % in the first semester of 2009[14], which is more than double the figures presented by INDEC, but still lower than the very high percentages in the second half of 2002.

The above indicates a more favourable situation in 2008 as compared to 2002. This is mainly due to the fact that the 2008 financial crisis found the country with a much greater participation of the Public Sector of the economy through the implementation of social policies which have been initiated in order to alleviate the consequences of the 2001-2002 crisis, many of which are still in force and the resources allocated to these programmes even have increased over time (Plan Jefes y Jefas de Hogar, Programa Nacional y Provincial de Seguridad Alimentaria; more on these policies in the next paragraph). As a result of these programmes an important continuous transfer of resources to the most vulnerable sectors of society was taking place, which "protected" the vulnerable population and reduced the effects of the global financial crisis of 2008.

In sum, the data reveal that the nature and magnitude of both crises was different. The crisis of 2001/2002 was a national one caused by the economic, financial, social, political and institutional instability of the country at that time with dramatic effects on employment, income and food security of the urban poor. The one that took place in 2008 was of external origin that affected the economy but not as hard as in 2001/2002 and with less effects on the low income population due to the social and economic policies applied since 2002 (see the next chapter for more details) and subsequent interventions added on later on (e.g. the Universal Child Allowance initiated in 2009) which worked as "buffers" of the current crisis.

3.2 Institutional responses adopted by the national, provincial and municipal government to alleviate the effects of the crisis for the urban poor

National and provincial actions
As mentioned above, after the 2002/2002 crisis several national policies and programmes of wide coverage were created that have an important incidence on income and nutritional status of the population. These initiatives are generally focused on the most vulnerable populations: e.g. "population lacking health coverage and living in poverty", "women of childbearing age", "unemployed household heads with children under 18", etcetera and seek

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[13] Even though data from the last trimester of 2009 is not available, it is considered that the negative tendency will not be reverted.
[14] http://www.ellitoral.com/index.php/id_um/45063-

to improve the socio-economic conditions of the targeted families and individuals through the transfer of money to these families/individuals.

An example of these policies and programmes is the **Plan Jefes y Jefas de Hogar** (Plan m/f Heads of households)[15] that in 2002 benefitted more than two million people (of which 70.5% women) from around the country but most of them living in the central region (Buenos Aires City and Santa Fe, Cordoba and Buenos Aires Provinces). This programme is currently being transformed into the "Plan Nacional Familias" (National Families Programme)[16].
The nutritional effects generated by the programmes mentioned above are difficult to define due to lack of data and mechanisms to assess such initiatives (CONAEyC, 2009).

Another example is provided by the "**Programa Nacional y Provincial de Seguridad Alimentaria"** (National and Provincial Food Security Programme), jointly implemented by National and Provincial Governments to relieve families in a situation of high socio-economical vulnerability. In Santa Fe Province, the "Santa Fe Vale", "Nutrir Más" and "Celíacos" food charity initiatives under this programme, were unified in September 2008 under the special programme "**Tarjeta Unica de Ciudadania" (**Unique Citizenship Card) that is implemented by the Provincial Office of Community Aid of the Ministry of Social Development. With help of this Citizenship Card, beneficiaries of the Santa Fé Vale, Nutrir Más and Celíacos initiatives can obtain food in authorized shops to a value of $100 under the condition that children in nutritional risk in these households have to attend health centres to do medical checks. These families are offered nutrition education workshops too. Through this programme the provincial government offers food reinforcement to about 200.000 vulnerable Santa Fe inhabitants.

To the policies that were initiated after the 2002 crisis, others were recently added, such as a increase of the **pension** rate for people of old-age, handicapped and mothers with more than 7 children and the passing of a decree launching the **Universal Child Allowance**, both in November 2009, and the regularization of the access to the Basic Universal Assistance.

Since 2001 and 2002 crisis, the National Government is also negotiating with the Argentine supermarket chains in an attempt to slow down the price increase of essential consumer goods.

Among the national initiatives directly oriented towards an enhancement of the nutritional situation of the population, we can mention the "**Pro-Huerta"** (Pro Garden) programme (Pro Garden). Pro-Huerta is addressed to the poor that face problems of access to a healthy diet. It promotes a healthy more diversified and equilibrated diet through self-production at a small scale of fresh foods by the addressees. The set of benefits provided is focused in organic vegetable garden and farm models for family, school, community and institutional self-access. The programme is implemented by INTA (the National Institute of Agricultural Technology) with the support of the National Ministry of Social Development (MDS). The programme was initiated in 2003 as part of the law 25.724/03 that created the National Plan of Food Safety "El Hambre más Urgente" (PNSA), and the National Office for Agriculture, Stockbreeding, Fisheries and Food (SAGPyA). The INTA provides the administration, supervision, training, technical assistance and supply delivery, while the MDS and the SAGPyA establish the social policy guidelines and provide the funding.

The families that benefitted from Pro-Huerta are located for 33% in rural areas, 40% in urban areas with up to 50.000 inhabitants and 27% in larger cities. Two thirds of the beneficiaries are urban or peri-urban poor. In total more than 500.000 family gardens, 8.000 community gardens and more than 7.000 school gardens have been established involving a beneficiary

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[15] www.trabajo.gov.ar/jefes/index.asp
[16] http://www.trabajo.gov.ar/jefes/servicios/planfamilias/index.asp

population of 2.8 million people. To access the programme the households need to meet certain requirements: Having a minimum of land available needed to establish the garden; Attending a training given by the technical teams of Pro-Huerta; Timely fulfilling certain preparations (preparing sowing bed, fencing and water provision, etc) (Mazzuca et al, 2009).

Other initiatives developed by the Province include the support of **child meal centres** and distribution of milk to children ("**copas de leche**"). The centres and copas de leche are implemented by governmental and non-governmental organizations (NGO's) that register as a child meal centre and distribute "copas de leche" and food (breakfast and/or lunch and/or tea) to children between 2 and 12 from households with unmet needs.
The centres and copas de leche are financed through the profits obtained by the provincial lottery.

The government of Santa Fé also provides free health care services to the whole population that may be in need for it, through a network of health centres and coordinated actions with social programmes[17].

The **Commission of the National Health and Nutrition Survey** (2004-2005) is also worth to be mentioned. This commission had as its general objective to provide information about the nutritional and health status of children up to 5 years, women of 10 – 49 of age and pregnant women, and the factors that influence their nutritional status to the departments of Health, Social Help and Social Action that are responsible to implement nutritional-food policies and programmes. A second objective is to contribute to the formulation and adjustment of policies around nutrition, health and food at provincial, regional and national level.

Local initiatives
Local government entities developing actions designed for the improvement of the population's nutritional status are the Rosario Health Department and the Social Help Office.
The Health Department funds and manages a network of 50 health centres located in low income neighbourhoods. As in the case of the provincial health centres the local health centres offer healthcare services (e.g. consultations, diagnostic studies, provision of vital drugs, hospitalization). These services are offered for free to the low income population. The health centres coordinate actions with provincial and local programmes intended to improve the population's nutritional status e.g. provision of free milk and vitamin supplements to children and pregnant women.
To confront the actual crisis and related nutritional problems, a nutrition team has been established made up of professionals who are experts in medicine, nutrition, epidemiology and pharmacy to evaluate the local population's nutritional situation and to give guidance to local health teams in designing of effective strategies to reduce the nutritional problems discovered in the local situation. Some examples of such strategies are:
- Monitoring food prices, found in grocery stores and small supermarkets.
- Offering guidance and training for health teams and families with the aim of promoting a better selection of the food in the family shopping basket. This is to avoid the unnecessary prioritization of products containing pharmacological ingredients.
- Giving nutritional counselling for special cases
- Promoting healthy habits coordinated with sports.

The Social Development Secretary runs the **CRECER** Programme and the **Urban Agriculture** Programme.

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[17] The Ministry of Health is currently collecting anthropometric data among the population that attends a health center in order to get information that allows to asses the impact of this policy and as a basis for decision making on future strategies.

The CRECER program is implemented in 31 CRECER Centres. The main goal of the programme is the social inclusion of vulnerable groups and giving their children access to formal education, offering them the same possibilities that children from other social classes have. The programme includes the following actions: 1. Recreational project seeking to pedagogically stimulate children between 2 and 5 years old; 2. Territorial project seeking integration of neighbours by jointly developing the public spaces in their neighbourhood; 3. Nutritional project providing a varied, balanced and complete menu to children from 2 to 5 years old, while younger children receive a monthly food basket containing milk; 5. Productive Projects aiming at establishing vegetable gardens to improve the family consumption. Actually 1,300 vegetable gardens in Rosario are managed by the CRECER Programme, with approximately 30,000 beneficiary families, including 4,800 children linked to the pedagogic programme.

The Urban Agriculture Programme, under the Sub office Solidarity Economy, was transformed into an institution in January 2002 as an answer to the socioeconomic crisis *of* 2001/2002. The programme's goal is to improve the living conditions of families in a vulnerable social position by promoting local food production, processing and commercialization and stimulating the consumption of healthy food. The intention of this programme is to try to enhance the local economy by relating the local production of seasonal vegetables and aromatic, medicinal and ornamental plants) with the set up of small scale associative agro industries (vegetables and natural cosmetics) and a commercialization system favouring direct relations between producers and consumers. The Pro-Huerta programme provides the Rosario urban agriculture programme with inputs and occasionally subsidizes the purchase of infrastructure materials and the costs of technical advisors. The local government provides the logistics, the budget for the payment of technical advice, the basic infrastructure and the tools for the vegetable gardens and defines the political instruments and the regulation of the activity. The Centro de Estudios Agro-ecológicos, CEPAR (Agro-ecological Studies Centre) provides a technical team that is incorporated in the Agricultural Programme and that develops the intervention methodologies and agro-ecological production techniques, establishes relationships with international cooperation organisms to raise funds and administrates the programme funds. The work in the vegetable gardens is done by people in a vulnerable social position. There are two main types of gardeners: a. those who offer their work as compensation to receive a social subsidy from one of the national social programmes like the "Plan jefes y jefas de hogar"; and b. those who are looking to generate some income from the sales of the products. In 2003, there were 791 community vegetable gardens. In 2004, with the improvement of the economic situation, many gardeners were reinserted in the formal economy. Today, there are 97 consolidated vegetable gardens integrated in a commercialization system. The estimated income generated by a community vegetables gardener is between AR$400 to AR$600 (Mazzuca et al, 2009).

3.3 The socio-economic and cultural situation in the two study areas

3.3.1 Brief characterization of the selected two city areas

Santa Lucía
Santa Lucía neighbourhood is located within the western part of the city (figure 5). Twenty four percent of the blocks are temporary settlements without paved streets. Largest part of its population comes from other irregular settlements[18] in the city; Part of them was relocated

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[18] Irregular settlements do not appear in official street plans and are characterized by houses that are built with poor quality material, the absence of paved streets and the lack of sanitation. They are generally densely populated.

by the government, while others arrived to the neighbourhood by their own means. It is possible to identify five sub-areas: Santa Clara, Los Hornos, Los Eucaliptos, Los Fonavis and La Palmera

Figure 8. Santa Lucía neighbourhood with sub- areas
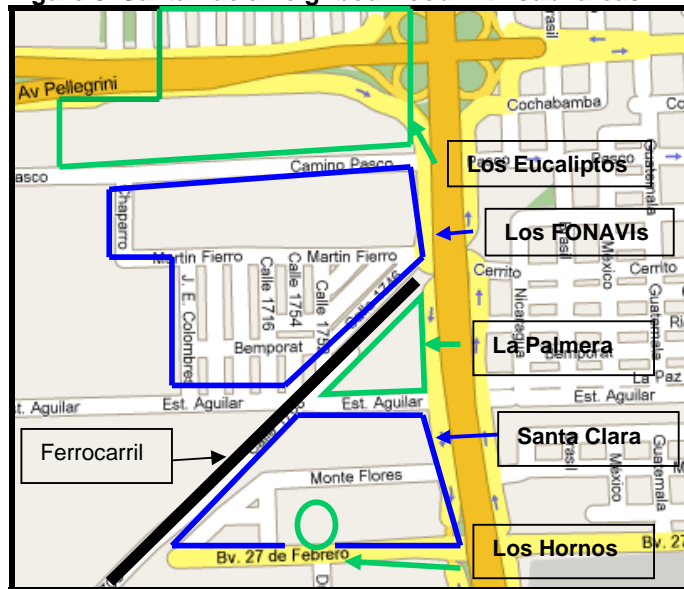
Santa Lucia used to be a farming area. In the 90's social housing was built by FONAVI and later also by the Province and the Municipality. Its population has an urban tradition and a strong ability to mobilise themselves and demand services and benefits from the Government. Inhabitants of Old Santa Lucía used to be informal waste-pickers that benefitted from the social housing projects, but who lost the land they squatted and used for their waste picking and sorting activities, which they had to give up.

One fifth of Santa Lucia is made up of social housing and the rest is made up of houses built with a variety of low quality materials. The neighbourhoods Los Eucaliptos, La Palmera and Los Hornos are irregular slum settlements inhabited by an impoverished population. Los Eucaliptos is next to the highway. The living conditions in these areas are very poor: there is no water or electricity, informal waste dumps are present and the houses are made from very low quality materials. A significant part of its population does not live in this neighbourhood permanently but moves regularly from one settlement to another. The neighbourhood receives people from other settlements in Rosario, as well as from other cities and counties. Often newcomers have some relatives living in the area already.
La Palmera has electric service and some water taps which were illegally installed. Los Hornos was named like that since the area is known for its brick kilns. Not long ago, a project brought about some improvements in this area. But although as a result this area has water service and streets are being paved, its population is among the socio-economically most vulnerable.

We encountered in Santa Lucia five charity organizations that provide children with "copas de leche" (4 in Los Eucaliptos, 1 in Santa Clara), two Public Health Centres (most of them attending children in the age group of 0-2 years) one of them in Santa Clara and the other one in Los Fonavis, two community centres (one of them provides "copas de leche" in Los Fonavis, another also in Fonavis with CRECER provides lunch and dinner), a kindergarten and two primary schools (the schools and the kindergartens provide the students with breakfast and lunch) in Los Fonavis and an ecclesiastical organization in Santa Clara. In La Palmera and in Los Hornos there are no organizations.

Although there is a CRECER Centre in the neighbourhood, no vegetable gardens have been established as yet by the Urban Agriculture Program in this area.

Tio Rolo

Tio Rolo is situated in the Southwest of the Municipality. Tio Rolo is somewhat isolated from the city since it is surrounded with open land and only one bus connects the neighbourhood to the urban conglomerate. According to information gathered by the focus group, inhabitants started to settle down in Tio Rolo in the seventies. Initially, its population was mainly made up of farmer families of which a few remain that work in the 12 big green vegetable gardens that still exist in the area (whose owners do not live in the neighbourhood). The actual population is mainly workers in the factories that were set up in a nearby area.

Figure 9. Tío Rolo neighbourhood with sub- areas
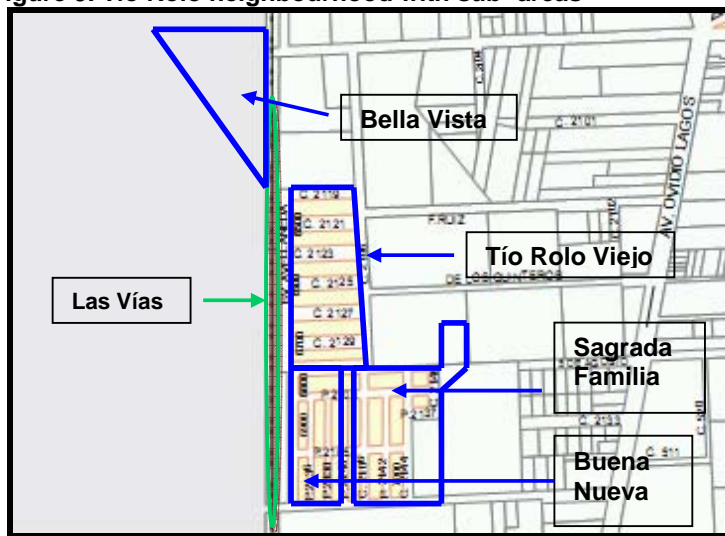
Systematic observation revealed that 9% of the blocks are irregular settlements without paved streets. There are five sub-areas in the neighbourhood: Sagrada Familia, Buena Nueva, Las Vías, Bella Vista and Tio Rolo Viejo. The neighbourhood does not have a sewage system with exception of Tio Rolo Viejo and Sagrada Familia. The inhabitants have water and electricity supply as they have made some illegal connections. The area of Sagrada familia was inhabited after the construction of social housing by the Provincial Management of Housing and Urban affairs. Buena Nueva is populated by humble social housing but people´s socio-cultural background is similar to people in Sagrada Familia. One sixth of this area is occupied by social housing which was built in the framework of the project in the Sagrada Familia area mentioned above. Tio Rolo Viejo is made up of middle-class families whose houses were built with solid building materials on quite big plots. Bella Vista is an area of modest households but with paved streets. The area of Las Vias is an irregular settlement of 600 families alongside the railways. According to the director of the CRECER centre in this neighbourhood, most of these families receive financial support from governmental social programmes like Plan Jefes y Jefas de Hogar, Programa Familia or Tarjeta Unica de Ciudadanía. The focus group indicates that the settlement has been expanding in the last three years and especially in 2009, but that the growth of the neighbourhood has not been as marked as in other neighbourhoods. According to the focus group, the families of the irregular settlements carry out irregular jobs such as building masons or waste-pickers.

The systematic observation revealed the presence of two Protestant churches and a Neighbourhood Committee in Las Vias, a Municipal Health Centre, a Community Integration

Centre, a CRECER centre, a social and cultural centre and a primary school in Buena Nueva, a kindergarten in Sagrada Familia and a community centre with "copas de leche" and a church in Tio Rolo Viejo. No organizations were found in Bella Vista.

Although there is a CRECER Centre in the neighbourhood, no vegetable gardens have been established as yet by the Urban Agriculture Program in this area.

3.3.2 The demographic and socio-economic characteristics of the surveyed households

Demographic characteristics
The 604 surveyed households included 2817 people of which 52% female. Children in the age group 0-5 years represent 27.4 % of the household members, children in the age of 6-14 represent 20.2% and persons of 15 and older make up 52.5 % of the household members (table 3).

Table 3. Respondents by age group and sex

Age group in months or years	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
0-5 months	28	2.1	34	2.3	62	2.2
6-11 months	48	3.6	26	1.8	74	2.6
12-23 months	68	5.0	69	4.7	137	4.9
24-35 months	57	4.2	76	5.2	133	4.7
36-47 months	53	3.9	66	4.5	119	4.2
48-60 months	135	10.0	111	7.6	246	8.7
6 to 14 years	298	22.0	269	18.4	567	20.1
15 to 19 years	110	8.1	146	10.0	256	9.1
20 to 29 years	237	17.5	346	23.6	583	20.7
30 to 39 years	181	13.4	200	13.7	381	13.5
40 to 49 years	96	7.1	69	4.7	165	5.9
50 or more	41	3.0	53	3.6	94	3.3
Total	1352	100	1465	100	2817	100

The surveyed households have a minimum size of 2 members and a maximum of 13 members. 70% of the households are made up 3 to 5 members. No differences between the two neighbourhoods were found in this respect. There are on average 2.2 children under 15 years old per household.

The surveyed households include 608 women in the childbearing age (15-49), of which 95% have children in the age of 0-5 years, 6,4% were pregnant, 24% are grandmothers and 1,8 % are adoptive mothers.

Of the heads of the households 80% in Santa Lucía and 87.5 % in Tio Rolo is married or part of a cohabitating couple. 22% of the surveyed households in Santa Lucía and 14% in Tío Rolo were mono-parental (i.e. the household head is single or doesn`t live with her husband or his wife). The average age of the household head is 33.2 in Santa Lucia and 34.1 in Tio Rolo. In 50 % of the households the head is under the age of 32. In 20.9% of the surveyed households, a woman is the head of the household (26% in Santa Lucía and 15.8% in Tío Rolo).

Only 1.7% of the total number of the surveyed household members claimed to come from aboriginal origin. All the households which claimed to come from an aboriginal origin belonged to Santa Lucia.

49.6% of the surveyed household members said to be catholic (43% in Santa Lucia and 57% in Tio Rolo), 20% protestant and 304% said not to profess any religion. In 6.7% of the households there are different religions inside the same family, the combination of catholic with protestant being the more frequent, catholic and/or protestant with atheist is in second place.

65% of the population said that they had been born in Rosario (62% in Santa Lucia and 69% in Tío Rolo). 23.8 % of the household heads came from another province. Among the immigrant household heads the average time they have been living in Rosario is 17 years. 80% of the immigrant household heads have lived in Rosario for more than five years.

Education
Four percent of the household heads did not attend school. 73.8% of them finished the elementary school (68.6% in Santa Lucía and 78.9% in Tío Rolo), 12% of them finished high school (8% in Santa Lucía and 16% in Tío Rolo) and there are some persons that have followed higher education (table 4).

Table 4 Educational level of the household members

Level of schooling	Frequency	Percentage
no schooling	724	25.7
pre-school only	156	5.5
incomplete primary	742	26.3
complete primary	597	21.2
incomplete secondary	404	14.3
complete secondary	158	5.6
advanced studies	31	1.1
No reply	5	0.2
Total	2817	100

In Argentina it is compulsory to send children to kindergarten when they are 4 years old (born before June 30) and to elementary school when they are 5 years old and beyond. However, 6.5 % of the 6-year-olds in these neighbourhoods do not attend school, while for children in the age of 6-10 years this is 3.9 % and in the group of children in the age 11-15 years 1.9 %.

Housing
35% of the surveyed households are located in an irregular settlement (37.7% in Santa Lucía and 32.6% in Tío Rolo). 47% of the households in Santa Lucía and 51% of the households in Tio Rolo own the land on which they built their house. 17% of them reported to use the land with the consent of the owner, 1 % said they were paying a rent for the land and 31% said that they were squatters (35.7% in Santa Lucía and 27.6 % in Tío Rolo).

81.8% of the households claim to be the owners of the houses where they are living, 14.9% live in the house with consent of the owner consent and 1.5 % pay a rent for the house. Squatting houses and land is more frequent in female headed households (3.2% and 33.3% respectively) than in male headed household (1.5% and 31.2% respectively).

E*mployment*
53.6 % of the household members 15 years old and above report to be working at the moment of the interview (33.5 % of the women and 78.2 % of the men). 7.4 % of them said to be unemployed (6.7% of the women and 8.2% of the men). In the age group 15-19 years 24% work (18.5 women and 32.7 men). In the age group 20-39 years 58.3% of the people

work (35.7% women and 87.8 men). In the age group 40 years old or older 64.8 % have work (85.4 % men and 41.8% women) (Table 5).

The fact that more men than women are working is because part of the women is solely devoted to doing the house chores and looking after the children. Indeed, 52% of the women said to be house carers receiving no pay. One factor explaining this phenomenon is the cultural belief that "women should stay at home" and should not go to work or only if there is another woman in the household who can take care of the children while the mother is working. Another factor is that timetables of kindergarten and primary schools are short (children attend kindergarten for three hours and primary school for four and a half hours), which leaves the women with little time to take a job while their kids are at school.

Table 5 Employment categories of household members of 15 years old and above by neighbourhood

	Employment categories	Frequency	Percentage
Santa Lucía	Employee in private enterprise	165	22,8
	Public employee	12	1,7
	Independent worker (skilled craftsmen and unskilled temporal workers, street vendors, etc.)	145	20,0
	Own business/employer	2	,3
	Family worker without remuneration	217	30,0
	Domestic employee	23	3,2
	Pensioner	12	1,7
	Unemployed/seeking work	58	8,0
	Doesn't work nor seeks work	90	12,4
	Total	**724**	**100**
Tio Rolo	Employee in private enterprise	217	28,7
	Public employee	13	1,7
	Independent worker (skilled craftsmen and unskilled temporal workers, street vendors, etc.)	116	15,4
	Own business/employer	2	,3
	Family worker without remuneration	212	28,1
	Domestic employee	41	5,4
	Pensioner	14	1,9
	Unemployed/seeking work	52	6,9
	Doesn't work nor seeks work	88	11,7
	Total	**755**	**100**

Income
33% of the women and 78.2% of the men older than 15 years old contribute to the household income in one way or another. 1% of the households report that they do not have any income (2.4% for female headed households and 0.6% for male headed households). 55.8% are one-income households (57.1 % if the household head is a woman and 55.4% if the household head is a man), 33.6% are two-income households and 9,7% of the households have 3-incomes or more.

Nearly 30 % of the households have an income lower than $ 500 (41.7 % in Santa Lucia and 18.1 % in Tio Rolo), while 50% of the households said to have an income lower then $1000 (62% in Santa Lucía and 43.8% in Tío Rolo) (Table 6).

Female headed households are poorer (54% with an income lower than $ 500) than male headed families (23 %). It`s worth mentioning that most households headed by women were single parents (82.5%), while only an extremely low percent of the single-parent households were headed by men. 54% percent of the single-parent families have an income lower than $ 500 and 78% lower than $1000. In contrast, only 24.4% of the families where both parents live in the house have an income less than $500 and 47.2% an income less than $ 1000.

Table 6 Approximate household income by neighbourhood

Neighbourhood	Income categories	Frequency	Percentage
Santa Lucia	Less than $500	125	41,7
	$501 to $1000	61	20,3
	$1001 to $1500	51	17,0
	$1501 to $2000	29	9,7
	2001 or more	25	8,3
	No reply	9	3,0
	Total	300	100,0
Tio Rolo	Less than $500	55	18,1
	$501 to $1000	78	25,7
	$1001 to $1500	81	26,6
	$1501 to $2000	34	11,2
	2001 or more	35	11,5
	No reply	21	6,9
	Total	304	100,0

When interpreting these figures it is important to take into account that according to government data a standard family (adult woman and man and two kids in the age of 5-8) in October 2009 should have had an income higher than $463 in order not to end up in destituteness while $1045 was seen as the poverty line.
But it is also important to note that the focus group discussion participants indicated that revealed that the households probably tend to report lower than real income figures since they must qualify as poor and to become a beneficiary of a governmental social programme;

49.3% of the households had at least one member who was benefitted with money from a social programme of the government (58.6% in Santa Lucía and 39.5 in Tío Rolo). Of the heads of household 18% in Santa Lucía and 5.9% in Tío Rolo were benefitted. People receive an amount of $150 if they are on benefit with "Plan Jefes y Jefas del Hogar" and if they are beneficiaries of the programme "Plan Familia" and have 3 or more children living in the household, they receive a maximum of $250. Only one member of a family can be a beneficiary of these programmes. Most of the beneficiaries are women. In addition, an important part of the households are benefitted with the special Citizenship Card "Tarjeta Única de Ciudadanía" from the government with which they can monthly buy food to a value of $100.
Considering that most households are beneficiaries of a social programme to get money from the government and that 82.5% of the household heads contribute with money to their families it is likely that the number of families having an income less than $500 is over estimated.

3.4 Food sources and expenditures

The households report to have as their <u>main</u> source of food (Table 7): to buy food (80.3 % of the households in Santa Lucia, 87.8 in Tio Rio), governmental social support (meal centres,

"copas de leche", special card to buy food; 16.3 % in Santa Lucía and 9.5% in Tio Rolo), and other (help from relatives, charity and organic wastes collection (3.4 % in Santa Lucia and 2.7% in Tio Rolo).

Table 7 Main sources of food by neighbourhood

Neighbourhood		Frequency	Percentage
Santa Lucia	Buying	241	80.3
	State social programmes	49	16.3
	Other (help from relatives, charity, wastes collection)	10	3.4
	Total	300	100
Tio Rolo	Buying	267	87.8
	State social programmes	29	9.5
	Other (help from relatives, charity, wastes collection)	8	2.7
	Total	304	100

Food expenditures take up more than half of the income of a household (57% of the households in Santa Lucía and 59.9% of the households in Tio Rolo) (Table 8). 34% of the households even report to spend almost all their cash income on food. 0.7% of the households claimed to spend hardly any cash on food. These are very poor families who, as their means of living, scavenge for food in garbage dumps or are benefitted with help from relatives or the State.

Table 8 Average household food expenditures by neighbourhood

Neighbourhood		Frequency	Percentage
Santa Lucia	Nothing or almost nothing	4	1.3
	Less than half	32	10.7
	Half approx.	92	30.7
	More than half	70	23.3
	All or almost all	102	34.0
	Total	300	100
Tio Rolo	Less than half	27	8.9
	Half approx.	95	31.3
	More than half	78	25.7
	All or almost all	104	34.2
	Total	304	100

The focus group firmly believes that the high figure regarding the number of households that spend all or almost all their income is correct. This is explained by the fact that an important part of them do not pay rent (own house or use with consent of owner without pay) nor pay for water or electricity (some of them have illegal connections and others do not have any of such services), do not pay taxes, while and health and educational services are for free and travelling expenses are low since most inhabitants hardly go out of the neighbourhood or go by foot, bike or cart.

However, many people have irregular incomes and not all income of the men is shared with the household and is spent on alcohol and illegal drugs. Moreover, the most vulnerable population have a "right here right now" culture, which implies that when they occasionally a larger amount of money, it is likely that this is not spend on basic household needs but they on "luxury" goods like cell phones.

3.5. Coping strategies

Nearly all of the households report that they suffered from an increase in food costs in the past year. The strategies they apply to cope with this situation are (Table 9): to buy cheaper food (70.4% of the households of which 47.7% does so since last year only), cut down general costs (59.4% of which 49.2% does so since last year), 19% eat less (17.4% since last year), attend to community meal centres (30% of which 6.6 % since 2008) and to apply for government assistance (32.8 of which 7.5 since 2008).
These figures indicate that part of these strategies (especially those related with the social support programmes) is not a response to the 2008 crisis but already initiated after the crisis of 2001/2002.

Table 9 Strategies to cope with the increase in food prices

Strategies	Applied since various years		Applied since last year (2008)	
	Frequency	% (N=604)	Frequency	% (N=604)
Meal centres (community/school)	181	30.0	40	6.6
State Provision	198	32.8	45	7.5
Buy cheaper food	425	70.4	264	43.7
Wastes collection	39	6.5	15	2.5
Reduce other expenses	359	59.4	297	49.2
Eat less	115	19.0	105	17.4
Other (work more hours, support from Relatives, own food production)	92	15.2	52	8.6

Note: since households may apply more than 1 coping strategy the percentages do not add up to 100%

It was expected to find that an important part of the population, in response to the crisis, would seek to produce its own food in a home or community gardens and by rearing small animals in back yards and vacant open spaces. However, the households hardly mentioned such a coping strategy.
In Tío Rolo 62 households had fruit trees, were growing some vegetables or rearing some animals. Out of 62 households 23 had on average 7.5 animals per household –mainly poultry and some ducks or geese-, in few cases also a sheep or goat, pig or rabbits but in very low numbers. Eleven households had sheep, goats, pigs or rabbits, but in very limited numbers only (in total 20 animals). Seven households have a horse that is used in the waste-picking job of their owners. In 19 households are growing some vegetables to a maximum of 10 square metres per household. The most common vegetables were pumpkin and tomato. 33 households had fruit trees (lemon, orange, tangerine, peaches and vines). Most households had only 1 fruit tree (only 5 households had more than one).
In Santa Lucía 69 households were growing some vegetables, had a fruit tree or kept some animals. Out of 69 households 61 had animals, mainly horses (since this neighbourhood has many waste-pickers and part of them uses horse drawn wagons) but also poultry (24 households; in average 5 per household in few cases also a sheep or goat, pig or rabbits but in very low numbers. ,. Seven households are growing vegetables and plants in very small areas (biggest sown area was 0.50 x 1.50 metres). There was a fruit tree in six households.

Even though in both neighbourhoods the families are eating the food they produce, it is insignificant as a food source for the household, taken into account the very small sizes of the areas sown and the fact that part of the animals is not consumed but sold, kept as a fighting cock or as pets.

The results of the systematic observations on local food production in both neighbourhoods, indicate that self production of food is not very common in these neighbourhoods and has mainly a marginal importance in the nutrition and economy of the households, reason why it was hardly mentioned by the survey respondents as a survival strategy to face the crisis or as a food source. The focus group discussion revealed that over the years, a culture of dependence (relying on government assistance) and of political favouritism has developed that reduced the local initiative and motivation to work. Asking for assistance comes to this population as the most immediate, less arduous and less risky option than running a vegetable garden or rearing animals. It is highlighted that faced with their poverty condition, the population developed a "right here right now" culture in which context setting up a vegetable garden (seen as a long term project) is less desirable. The lack of space and a nearby source of water to develop such activities were also mentioned as a restriction.

Only 7 households (2 in Santa Lucía and 5 in Tío Rolo) were supported with seeds and / or hens and cocks by the urban agriculture programme of the organization CRECER.

Another point to take into account is that someone operating a medium-sized (200 to 600m^2) vegetable garden can earn between $400 and $600 a month by selling its produce (Mazzuca et al, 2009). However, since this activity is high human risk, time- consuming and physically demanding, people prefer doing other kind of activities. The average income that waste-picker families get is approximately $800 a month.

It was mentioned that in the Los Hornos area of Santa Lucía there had been an attempt to organize a community vegetable garden, but it didn't work. It was also mentioned that some households work in commercial vegetable gardens in the surrounding area of the neighbourhood owned by people from outside the area.

3.6 Nutritional situation of children and woman

3.6.1 Food intake

The survey showed that there are no problems with the intake of liquids. 78% of the children and 82% of the women drank water and 83.9% of the women and 33% of the children drank "mate" (herbal tea) two or more times in the last 24 hours. As mentioned above, the irregular settlements have water supply through legal or illegal connections which can be either inside or outside the household. Apart from the intake of water and "mate" 76% of the children and 18% of the women drank milk and 73% of the children and 78% of the women drank artificial juice and sodas.

96.5% of the women and 88% of the children in the age group of 0-5 years eat at least once one item of food group 1 (cereals, flour, etc.). The wide intake is explained by the fact that products made of flour are very cheap (e.g. bread, spaghetti) and widely accepted by the poor in Argentina. Indeed, most rations provided by the charities contain these kinds of products. Its wide intake is also explained owing to the fact that flour-industrialized products (such as spaghetti, rice crackers, flour) can be kept without refrigeration and they can also be prepared easily and quickly (and thus reducing the costs of gas).

87.7% of the women and 84% of the children had eaten at least one item in food group 2 (fruits and vegetables) in the last 24 hours. It is worth mentioning that during the summer, fruits and fresh vegetables are on sale and some fruits and vegetable are at a lower price.

The intake of milk and other dairy products (food group 3) is considerable, especially in the diet of children (90% of the children and 42.6% of women). The high intake of dairy products by children is due to the social programmes (provision of milk, mainly from milk powder). Cheese and yoghurt are very expensive.

The food group 4 (proteins: meat, fish and eggs) has an important place in the daily diet (92.3% of the women and 83% of the children). Despite being expensive in relation to other products, the population includes them in their diets. Argentina is an important meat producer (beef) and has the highest consumption of meat per capita in the world. Meat is relatively inexpensive in Argentina as compared to the price of meat in other countries and the poor usually buy the cheaper types of meat and/or add the bones to make the stew tasty.

The intake of butter, fat and oily products (food group 5) is reported by 94.7% of the women and 88.9% of the children.
The consumption of sugar and sweets (food group 6) is reported by 92.8% of the women and 85% of the children. The high intake of group 6 is explained mainly by the consumption of sweets, sodas and artificial juices.

60.3% of the children and 56.3% of the women have used 4 meals in the last 24 hours, which is custom in Argentina: 2 main meals (lunch and dinner) and 2 snacks or less important meals (breakfast and tea) (Figure 10). It was noticed that children had more meals or snacks than the women, which according to the Focus Group is explained by the children that attend meal centres and "copas de leche" and mothers giving priority to their children when distributing food.

Figure 10 Number of meals taken by women of 15-49 years old and by children of 0-5 years old
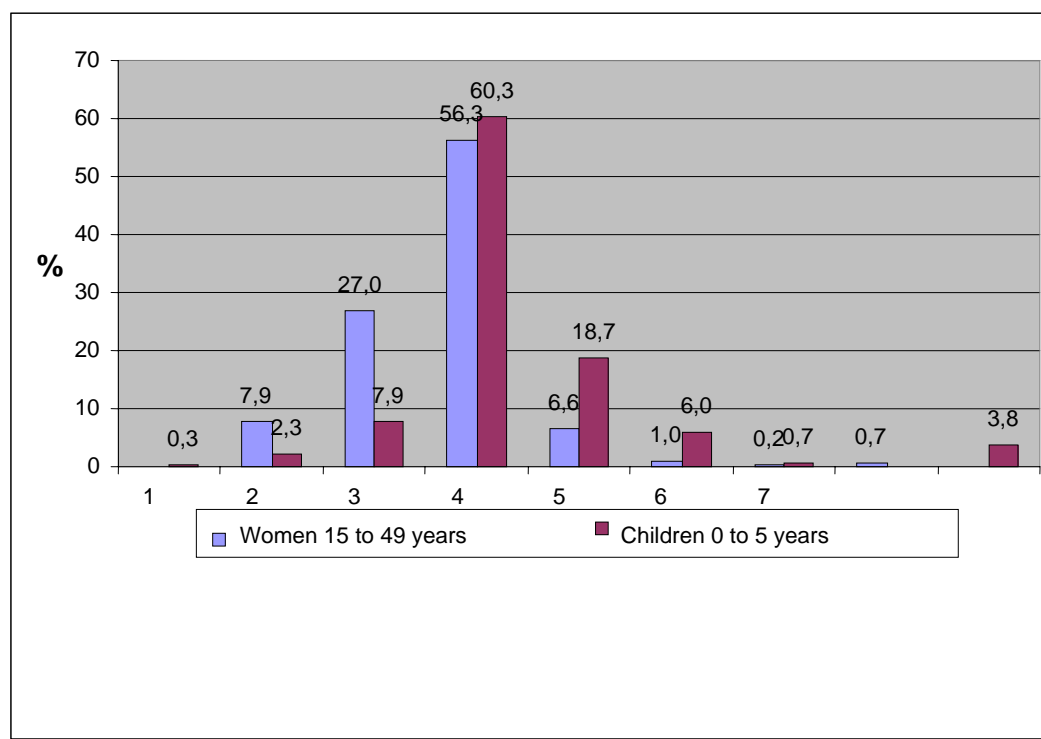
In general terms, it was noticed that the population in question has a varied diet, with high-calorie and nutritious foods and a considerable number of intakes (however, this survey did not determine the size of the portions nor the quality of food consumed).

Members of the Focus Group highlighted that for the people in these neighbourhoods highly value food and their ideal of beauty and health is plump children and women**.**

3.6.2 Nutritional situation of women between 15-49 years of age and primary care giver of young children

2.3% of these women are below the normal weight (mild thinness 1.8% and moderate thinness 0.5%), 42.8% are within the range of normal BMI and 31.5% are pre-obese and 23.5 are obese (Table 10). These values are in line with earlier studies (De Girolami et al, 2003).

Table 10 Body Mass Index (BMI) classification for 15-49 year-old women

Range	Frequency	Percentage
Moderate thin	3	0.5
Mild thin	10	1.8
Normal	239	42.8
Pre-obese	176	31.5
Obese I	68	12.2
Obese II	43	7.7
Obese III	20	3.6
Total	559	100

Malnutrition percentage is similar in both neighbourhoods (2.5% in Santa Lucía and 2.1% in Tío Rolo), but only in Santa Lucía moderate thinness was observed. The percentage of women with normal BMI was lower in Santa Lucía (38.8%) than in Tío Rolo (46.6%) but the difference is not significant (Chi=3.34 p=0.067). The pre-obesity percentage is similar in both neighbourhoods. The proportion of obesity is significantly higher in Santa Lucía (27.2%) than in Tío Rolo (19.8%) (Chi=4.05, p=0.044; OR: 1.4).

12.2% of the women considered that they had some nutritional problem. 5.9% of the women are receiving treatment for such a problem (especially regular health checks and the prescription of iron, folic acid or vitamins). 23% of the women with BMI below the normal range and 19% of the women with BMI within the obesity ranges perceived that they had a nutritional problem. Most of the women under treatment were in the obesity and pre-obesity BMI range.

3.6.3 Nutritional situation of children 0-5 years

Weight-for-age (WAZ)
According to this indicator -used as a global underweight indicator because it does not allow a difference between acute or chronic development (Cordero et al 2007)- the percentage of underweight children (below -2 DS) was 1.6% (Table 11).

Table 11 Classification according to weight-for-age (WAZ) index

	Frequency	Percentage	Valid percentage
under -3 SD	4	0.5	0.5
between -3 to -2SD	8	1,0	1.1
between -2DS and 2SD	628	81.5	83.3
between 2 and 3 SD	81	10.5	10.7
above +3SD	33	4.3	4.4
Total	754	97.8	100
System loss	17	2.2	
Total	771	100	

This is similar to what Sguassero et al (2009) found in a similar population (1.77%). A higher prevalence of underweight was observed in boys than in girls (2.1% of boys and 1.1% of girls), but this difference is not significant. The difference between the two neighbourhoods is

high (8 in Santa Lucía and 0 in Tío Rolo) but statistical significance could not be established because of the sample size.

Height-for-age (HAZ)

This indicator allows identifying the children with chronic malnutrition (or stunting) which in happens in 5.8% of the children of 0-5 years in these neighbourhoods (Table 12). The stunting prevalence was significantly higher [p= 0.0045] in Santa Lucía (8.2%) than in Tío Rolo (3.3%). Sguassero et al (2009) found 4.49% of stunting in children for Rosario, indicating that kids in Santa Lucía are more vulnerable than in other parts of the city.

Table 12 Classification according to height-for-age (HAZ)

SD	Frequency	Percentage	Valid percentage
under -3 SD	19	2,5	2,6
between -3 to -2SD	24	3,1	3,2
between -2SD and 2SD	582	75,5	78,6
between 2 and 3 SD	60	7,8	8,1
above +3SD	55	7,1	7,4
Total	740	96,0	100,0
System loss	31	4,0	
Total	771	100,0	

Low height-for-age occurs more frequent among boys than girls (6.5% among boys and 4.9% in girls) but the difference is not significant.

Weight-for-height (WHZ)

According to this indicator – that allows identifying children who have acute malnutrition (or wasting) and is an early indicator of problems or changes in access to food – 0.4% of the children studied have acute malnutrition. This value is below what Sguassero et al. (2009) found (0.72%). 0.1% of the children (all male) had moderate malnutrition and 0.3% serious malnutrition. No significant differences were found between the two neighbourhoods.

Table 13 Classification according to weight-for-height (WHZ)

SD	Frequency	Percentage	Valid percentage
Under -3 SD	2	0.3	0.3
between -3 to -2SD	1	0.1	0.1
between -2DS and 2SD	619	80.3	84.3
between 2 and 3 SD	71	9.2	9.7
Above +3SD	41	5.3	5.6
Total	734	95.2	100
System loss	37	4.8	
Total	771	100	

According to this indicator, 9.7% of the children are overweight and 5.6% are obese. These values are above the findings by Sguassero et al. (2009). No significant differences were observed between the two neighbourhoods, although the overweight/obesity prevalence was higher in Santa Lucía than in Tío Rolo (10.4% overweight and 5.6% obesity in Santa Lucía; 8.9% overweight and 5.6% obesity in Tío Rolo).

Nutritional status of the surveyed children according to the WHO standards

According to the new WHO growth and development standards shown in Table 14 (taken from Sguassero, 2007) 81.3% of the children in the survey have a normal nutritional

condition, 3.4% have signs of wasting and/or stunting, 9.7% are overweight and 5.6% are obese (Table 15). In Tío Rolo a higher proportion of the children have a normal nutritional status (84.4%) than in Santa Lucía (78.4%), although the difference is not significant. The proportion of children with wasting and/or stunting (5.6% in Santa Lucía and 1.1% in Tío Rolo) differ significantly [Chi=11.02; p=0.00090]. The proportion of children with overweight and obesity are very similar in the two neighbourhoods.

Table 14 Nutritional classification based on the new WHO growth and development standards

Category	WHZ	HAZ	WAZ
Severely wasted and moderately stunted	Under -3DS	Under -3DS	
Severely wasted but not stunted	Under -3DS	-2 DS to +2 DS	
Moderately stunted but not wasted	-2 DS to +2 DS	Under -3 DS	
Mildly wasted and mildly stunted	-3 DS to -2 DS	-3 DS to -2 DS	
Mildly wasted but not stunted	-3 DS to -2 DS	-2 DS to +2 DS	
Mildly stunted but not wasted	-2 DS to +2 DS	-3 DS to -2 DS	
Normal	-2 DS to +2 DS	-2 DS to +2 DS	-2 DS to +2 DS
Underweight			-3 DS to -2 DS
Severely underweight			Under -3 DS
Overweight	+2DS to +3DS		
Obese	Over +3DS		

Table 15 Nutritional condition of children 0-5 years in Santa Lucia and Tio Rollo according to the WHO growth and development standards

Category	Frequency	Valid percentage
Severely wasted and moderately stunted	1	0.1
Severely wasted but not stunted	1	0.1
Moderately stunted but not wasted	7	1.0
Mildly wasted and mildly stunted	1	0.1
Mildly stunted but not wasted	15	2.0
Normal	597	81.3
Overweight	71	9.7
Obese	41	5.6
Total	734	100

According to the primary care takers of the children 16.2% of the children had some nutritional problem. 12.6% received some kind of treatment (mainly provision of vitamins, iron, or folic acid and regular health checks.
36 % of the care takers of children with wasting and/or stunting and 14.6% of the caretakers of obese children considered that these children had a nutritional problem.

3.6.4. Relation between the nutritional situation of women and children and the living conditions in the two neighbourhoods

With the purpose of analyzing the relationship between the living conditions of the population and its nutritional condition, tests of statistical association were conducted between the nutritional condition of women and children and the following variables: neighbourhood, kind of settlement (slum / not slum), age group, schooling, place of origin, sex of family head, mono-parental family, unemployed family head, kind of ownership of the house (owners, pay rent, have the owner's consent, squatting), family income, food expenditure and participation a social programme.

For women of 15-49 years of age only the variable age showed some statistically significant association (also due to the fact that the number of cases of thinness was small). Table 15 presents the variables that showed a higher correlation.

Table 15 Some variables with a higher correlation with the nutritional situation of women 15-49 years

	Thinness*		Normal		Chi	p-value	OR
	N	%	N	%			
Kind of settlement							
Irregular	7	53,85	90	37,66			
Regular	6	46,15	149	62,34	1,36	0,2426	
Age Group (years)							
15 to 24	11	84,62	112	46,86			
25 to 49	2	15,38	127	53,14	7,03	0,00800	6,24
Schooling							
Incomplete primary or less	3	23,08	54	22,59			
Complete primary or more	10	76,92	185	77,41	0	0,96760	
Sex family head							
Female	5	38,46	49	20,50			
Male	8	61,54	190	79,50	2,36	0,12430	
Monoparental Family							
Yes	5	38,46	49	20,50			
No	8	61,54	190	79,50	2,36	0,12430	
Unemployed family head							
Yes	3	23,08	50	20,92			
No	10	76,92	189	79,08	0,03	0,85260	
At least one family member is beneficiary of a money transfer program							
Yes	6	46,15	94	0,05			
No	7	53,85	145	60,67	0,24	0,624	
Total	13		239				

  * mild and regular

No significant relations were found between the nutritional status of women and the socio-economic status of the households.

In the case of the children, a statistically significant association was found between the nutritional status of the children 0-5 years of age and the neighbourhood where they lived (OR 4.31, p-value: 0,0016), the income level of the household (OR:5,4; p-value: 0,0006), the age of the children (OR=5,8; p-value: 0,0000) and the age (OR: 2,8, p-value: 0,025) and educational level (OR: 2,3; p-value: 0,032) of the caretaker. Malnutrition is more frequent in Santa Lucía, in households with lower income, in children younger than one year old, with younger caretakers with a lower level of education. Children belonging to homes with better socioeconomic conditions showed a lower proportion of children with malnutrition, overweight and obesity (Table 16).

Table 16 Some variables with a higher correlation with the nutritional status of children 0-5 years

	Overweight and obesity		Malnutrition		Normal	
	n	%	n	%	n	%
Neighbourhood						
Santa Lucía	60	54,1	21	84,00	294	49,2
Tío Rolo	51	45,9	4	16,00	303	50,8
Age						
0 - 11 months	28	25,2	13	52,0	93	15,6
1 to 5 years	83	74,8	12	48,0	504	84,4
Age group of caretaker						
15 to 19 years	13	11,7	5	20,0	58	9,7
20 years or above	98	88,3	20	80,0	539	90,3
Schooling of caretaker						
No schooling / incomplete primary	5	4,5	11	44,0	142	23,8
At least complete primary	106	95,5	14	56,0	455	76,2
Unemployed family head						
Yes	20	18,0	8	32,0	100	16,8
No	91	82,0	17	68,0	497	83,2
Income						
Less than $1000	53	47,7	21	84,0	334	55,9
$1000 to $2000	42	37,8	4	16,0	173	28,9
$2001 or more	16	14,4	-		90	15,0
Total	111	100	25	100	597	100

The high level of malnutrition among children younger than 1 year can be explained by the low level of breastfeeding in the population as well as high prevalence of congenital disorders.

4. CONCLUSIONS

Malnutrition, overweight and obesity are more frequent in Santa Lucía than in Tio Rolo (mainly, in the case of children). Although the households in both neighbourhoods face poor living conditions, in Santa Lucía household income is lower, there is a bigger number of mono-parental households, mainly headed by women, a higher percentage of unemployed and of people with irregular and least desirable jobs, more families have very poor housing conditions and more households are beneficiary of government social support programmes, than in Tio Rolo.

The perception people have of food price increase and the type of strategies they apply to respond to the food and financial crisis are similar in both neighbourhoods. The analysis revealed that there is high dependence on the State social support programmes for the low income groups, part of which are in place already since the 2001/2002 crisis, which reduced the effects of the 2008 crisis on the urban poor. The low presence of own food production (rearing of animals, vegetable gardens) in the two neighbourhoods is also explained by the presence of these social programmes, which have reduced locale initiative, and the development of a "here and now" culture.

Despite the populations' poor living conditions, malnutrition levels found in women and children were relatively low, while a higher percentage of overweight and obese women and children were found. The low malnutrition prevalence is due to the positive and longer term influence of health policies and the social programmes that were developed as a response to the 2001 crisis (free milk and meals, card to buy food, etcetera, for the lowest income groups). That the prevalence of malnutrition in Rosario is lower than in other poor urban populations in Argentina, might be due to the strong public investment in health and social development by the Rosario Municipality since the 90`s.

The nutritional situation of women of 15-49 years of age shows a low prevalence of thinness (2.3%) and standard BMI (42%) and a high percentage of overweight (31.5%) and obese women (23.4%). It was observed that the cases of malnutrition of women were concentrated in younger women (15-24 years) with fewer resources.

Among the children 0-5 years old the underweight prevalence (WAZ) was high in Santa Lucía. Stunting (HAZ) was high (5.8%) in both neighbourhoods in comparison to the populations of the City as a whole. The percentage of wasting in young children (0.4%) was similar to that found in other parts of Rosario. Malnutrition was more frequent among kids younger than one year, from the poorest households, and looked after by caretakers that were young and with a low level of education. The high prevalence of malnutrition among children under 1 year of age can be explained –amongst others- by the low levels of breastfeeding practice in the population. This indicates the need to formulate policies for the promotion of breastfeeding, as well as the need to introduce changes in the meals offered by community centres and schools.

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ANNEX 1. THE SURVEY QUESTIONNAIRE

ENCUESTA DE NUTRICIÓN 2009

IDENTIFICACIÓN

PROVINCIA: Santa Fé   **CIUDAD:** Rosario

BARRIO: _____   **AREA DEL BARRIO:** _____

MANZANA Nº: [____]   **VIVIENDA Nº:** [____]

NOMBRE DEL JEFE DE FAMILIA:_____

NÚMERO DE NIÑOS ELEGIBLES (niños menores de 6 años): [____]

FECHA DE LA/S VISITA/S

VISITA Nº 1: ___ ___ /___ ___ /2009
        dd / mm / aaaa

OBSERVACIONES:

VISITA Nº 2: ___ ___ /___ ___ /2009
        dd / mm / aaaa

OBSERVACIONES:

NOMBRE DE LAS ENCUESTADORAS

NOMBRE NUTRICIONISTA:
_____

NOMBRE   TRABAJADORA   SOCIAL:
_____

NOMBRE NUTRICIONISTA:
_____

NOMBRE   TRABAJADORA   SOCIAL:
_____

NOMBRE SUPERVISOR:_____   EDITOR OFICINA: _____   INGRESADO POR:
_____
—

Leer y solicitar la firma al final de la entrevista.

SECCIÓN 1: ESTRUCTURA DEL HOGAR

A continuación nos gustaría que nos cuenten quienes viven habitualmente en su casa.

RESIDENTES HABITUALES	PARENTESCO	RESIDENCIA	SEXO	EDAD	PERSONAS A MEDIR
Por favor, ¿podría mencionarme los nombres de las personas que habitualmente viven en su casa, empezando por el jefe de familia?	¿Cuál es el parentesco de (Nombre) con el jefe de la familia? Indicar tipo de parentesco considerando las categorías ofrecidas	¿Ayer (Nombre) pasó aquí la noche?	Registrar si es femenino o masculino	¿Qué edad tiene (Nombre)? Indicar la edad en años. Si es menor de 12 meses indicar en meses	Escribir una cruz en el casillero de todos los niños menores de 6 años y de sus cuidadoras (si tienen entre 15 y 49 años)
NOMBRE	(1)	(2)	(3)	(4)	(5)
	Jefe de familia	SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	
		SI NO	F M	_____ o _____ Años Meses	

CATEGORÍAS PARENTESCO (P1)

01. Jefe de Familia	05. Yerno o Nuera	09. Hermano o Hermana
02. Esposo/a o Cónyuge	06. Nieto/a o nieto/a político	10. Otro Parentesco
03. Hijo/a	07. Padre o Madre	11. Sin Parentesco
04. Hijastro/a, Menor en Hogar, Hijo Adoptado	08. Suegro o Suegra	99. No sabe / No responde

SECCIÓN 2: MEDICIÓN DEL PESO Y LA TALLA DE MUJERES Y NIÑOS

MEDICIÓN DEL PESO Y TALLA DE LAS MUJERES DE 15 A 49 AÑOS A CARGO DEL CUIDADO DE NIÑOS MENORES DE 6 AÑOS				
Liste a las mujeres de 15 a 49 años a cargo del cuidado de los niños menores de 6 años.				
	¿Está Ud. embarazada? Circular la opción que corresponda	PESO (KILOGRAMOS)	TALLA (CENTÍMETROS)	RESULTADO **1.** Fue medida **2.** Estaba ausente **3.** Se rehusó 4. Otro
NOMBRE	**(6)**	**(7)**	**(8)**	**(9)**
	Si No Mes de gestación: ___	__ __ __ . __	__ __ __ . __	
	Si No Mes de gestación: ___	__ __ __ . __	__ __ __ . __	
	Si No Mes de gestación: ___	__ __ __ . __	__ __ __ . __	
MEDICIÓN DEL PESO Y TALLA DE NIÑOS MENORES DE 6 AÑOS				
Liste a todos los niños menores de 6 años.				
	¿Cuál es la fecha de nacimiento de _(Nombre)_?	PESO (KILOGRAMOS)	TALLA (CENTÍMETROS	Fue medido	Resultado 1 Fue medido 2 Estaba ausente 3 Se rehusó 4 Otro
NOMBRE	**(10)**	**(11)**	**(12)**	**(13)**	**(14)**
	__ __ / __ __ / __ __ __ __ dd mm aaaa	__ __ . __	__ __ __ . __	Acostado De Pie	
	__ __ / __ __ / __ __ __ __ dd mm aaaa	__ __ . __	__ __ __ . __	Acostado De Pie	
	__ __ / __ __ / __ __ __ __ dd mm aaaa	__ __ . __	__ __ __ . __	Acostado De Pie	
	__ __ / __ __ / __ __ __ __ dd mm aaaa	__ __ . __	__ __ __ . __	Acostado De Pie	
	__ __ / __ __ / __ __ __ __ dd mm aaaa	__ __ . __	__ __ __ . __	Acostado De Pie	
	__ __ / __ __ / __ __ __ __ dd mm aaaa	__ __ . __	__ __ __ . __	Acostado De Pie	
	__ __ / __ __ / __ __ __ __ dd mm aaaa	__ __ . __	__ __ __ . __	Acostado De Pie	
	__ __ / __ __ / __ __ __ __ dd mm aaaa	__ __ . __	__ __ __ . __	Acostado De Pie	
	__ __ / __ __ / __ __ __ __ dd mm aaaa	__ __ . __	__ __ __ . __	Acostado De Pie	

CONTINUACIÓN SECCIÓN 1: ESTRUCTURA DEL HOGAR

Las siguientes preguntas se deben aplicar a <u>todos</u> los miembros del hogar.

	¿Cuál es el último grado de estudio aprobado de <u>(Nombre)</u>? Indique el año aprobado y señale el nivel de escolaridad considerando las siguientes categorías: 1. No asistió a la escuela 2. Preescolar 3. Primario 4. Secundario 5. EGB 6. Polimodal 7. Terciario / Universitario	¿Cuál es el estado civil de <u>(Nombre)</u>? Responda considerando las siguientes categorías: 1. Soltero 2. En pareja 3. Separado o divorciado 4. Viudo	¿En qué ciudad o pueblo nació <u>(Nombre)</u>? Indique la ciudad / pueblo de nacimiento y clasifíquelo considerando las siguientes códigos: 1. En Rosario 2. Otro municipio/comuna de Sante Fé. 3. Otra Provincia 4. Otro país 5. No sabe / no contesta	¿Cuánto hace que <u>(Nombre)</u> vive en Rosario? Indicar el período en años. Si viven en Rosario hace menos de 1 año indicar en meses	¿Algún miembro de su hogar es descendiente o perteneciente a un pueblo indígena? Responda considerando las siguientes categorías: 1. Toba 2 Mocoví 3. Tupí 4. Guaraní 5. Aymará 6. Quechua 5. Otro	¿Cuál es la religión de <u>(Nombre)</u>? Responda considerando las siguientes categorías: 1.Católica 2.Evangélico 3.Testigo de Jehová 4. Islam 5.No profesa religión 6. Otro a especificar
NOMBRE	**(15)**	**(16)**	**(17)**	**(18)**	**(19)**	**(20)**
	Grado: _____ Nivel de escolaridad: _____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	

	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	
	Grado: _____ Nivel de escolaridad:_____		_____ Ciudad o Pueblo Código: ___	_____ o _____ Años Meses	SI NO	

	¿Actualmente (Nombre) está trabajando? Circule la respuesta que corresponda	¿(Nombre) ha tenido algún **trabajo e**n los últimos 12 meses? Circule la respuesta que corresponda	**¿(Nombre) es beneficiario de un plan social?** Circule la respuesta que corresponda. Considerar sólo planes sociales de transferencia de dinero	**¿Cuál es la ocupación de (Nombre)? Es decir, principalmente ¿qué tipo de trabajo realiza?** Indique la ocupación y refiera la categoría que corresponda: 1. Obrero o empleado de empresa particular 2. Obrero o empleado del gobierno 3. Trabajador independiente o por cuenta propia 4. Patrón o empleador 5. Trabajador familiar sin remuneración 6. Empleada (o) doméstica(o) 7. Jubilado y/o pensionado 8. Desocupado 9. No trabaja ni busca trabajo 99. No sabe / No responde
NOMBRE	**(21)**	**(22)**	**(23)**	**(24)**
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:
	SI NO	SI NO	SI NO	Ocupación: _____ _____ Categoría:

	SI	NO	SI	NO	SI	NO	Ocupación: _____ Categoría: _____
	SI	NO	SI	NO	SI	NO	Ocupación: _____ Categoría: _____
	SI	NO	SI	NO	SI	NO	Ocupación: _____ Categoría: _____

La siguiente pregunta se debe aplicar a las mujeres y niños que fueron pesados y medidos.

	¿Qué comió (Nombre) desde ayer a esta hora hasta este momento? Palotear cuántas veces durante el día o la noche cada niño / mujer consumió alguno de los alimentos listados. En caso de que no sepa lo que comió algún niño durante el día de ayer preguntar por anteayer, en caso de que no sepa lo que comió el día de ayer ni anteayer anular toda la fila.									
	HARINAS Y CEREALES Pan, facturas, bizcochos, polenta, fideos, arroz, o algún otro tipo de comida hecho con harinas de maíz, arroz, trigo, avena, cebada, etc.	**VEGETALES, NARANJAS Y AMARILLOS** Calabaza, camote o batata, zapallo y/o zanahorias	**TUBÉRCULOS** Papa, remolacha, cebolla, o algún otro tipo de tubérculo (ej. mandioca)	**VERDURAS VERDES** Verduras de hoja verde (ej. acelga, espinaca, lechuga, etc.)	**FRUTAS COMUNES** Manzana, banana, naranja, mandarina, tomate	**OTRAS FRUTAS Y VERDURAS** Alguna otra fruta o verdura (ej. frutilla, pera, sandía, quinoto, pimiento, apio, zapallito, puerro, cebolla, cebolla de verdeo, palta, etc.	**PROTEINAS ANIMALES** Carne, pollo, pescado, hígado, riñones, achuras, chorizo, morcilla, fiambres o huevos	**LEGUMBRES** Lentejas, poroto, arveja o alguna comida hecha con legumbres (ej. milanesa de soja o guiso con legumbres	**LACTEOS** Queso, yogurt, ricota, queso blanco, flan, postrecitos (actimel, danonino), manteca, etc.)	**AZUCARES** Golosinas (caramelos, chocolates, chicles, chupetines, etc.), dulce de leche, azúcar etc..
NOMBRE	**(25)**	**(26)**	**(27)**	**(28)**	**(29)**	**(30)**	**(31)**	**(32)**	**(33)**	**(34)**

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La siguiente pregunta se debe aplicar a las mujeres y niños que fueron pesados y medidos.

	Agua	Gaseosas y/o jugos concentrados	Algún tipo de leche como leche en polvo, o liquida	Mate y/o mate cocido	Algún otro líquido
Desde ayer a esta hora hasta este momento, cuántas veces <u>(NOMBRE)</u> tomó …… Palotear cuántas veces durante el día o la noche cada niño / mujer consumió alguno de los líquidos listados.					
NOMBRE	**(35)**	**(36)**	**(37)**	**(38)**	**(39)**

	¿Alguna de las personas que se pesaron y midieron actualmente tiene problemas de nutrición como bajo peso, sobrepeso, anemia? Circular la respuesta que corresponda.	Actualmente ¿recibe (Nombre) tratamiento por ese problema? Circular la respuesta que corresponda.	¿Qué tratamiento recibe <u>(Nombre)</u> por ese problema actualmente? Circular la respuesta que corresponda considerando las siguientes categorías: 1. Vitaminas, hierro y/o ácido fólico 2. Recibe leche 3. Recibe alimentos 4. Realiza controles periódicos
NOMBRE	**(40)**	**(41)**	**(42)**
	SI NO	SI NO	1 2 3 4 otro:_____
	SI NO	SI NO	1 2 3 4 otro:_____
	SI NO	SI NO	1 2 3 4 otro_____
	SI NO	SI NO	1 2 3 4 otro:_____
	SI NO	SI NO	1 2 3 4 otro:_____
	SI NO	SI NO	1 2 3 4 otro:_____
	SI NO	SI NO	1 2 3 4 otro:_____
	SI NO	SI NO	1 2 3 4 otro_____

SECCIÓN 3 ESTRATEGIAS DE LOS HOGARES PARA AFRONTAR LA CRISIS

(43)	**¿Su familia es dueña de esta casa, la alquilan o viven aquí sin pagar?** Circular sólo una opción.	1. Son dueños 2. Pagan renta/alquiler 3. No pagan renta, tienen el consentimiento del propietario 4. No pagan renta, ocupación/ocupación ilegal
(44)	**¿Su familia es dueña del terreno sobre el que se asienta esta casa?** Circular sólo una opción.	1. Son dueños 2. Pagan renta/alquiler 3. No pagan renta, tienen el consentimiento del propietario 4. No pagan renta, ocupación/ ocupación ilegal
(45)	**¿Cómo obtiene los alimentos que consume su familia?** Circular todas las opciones que correspondan	**Fuente de alimentos** **Principal fuente de alimentos**
(46)	**¿Cuál de los medios que mencionó proporciona la principal fuente de los alimentos que consume su familia?** Considerando la respuesta dada en la pregunta anterior consignar con una cruz la principal fuente de obtención de alimentos	1.Comprados ___ 2.Asistencia del Estado ___ 3.Beneficencia (no del Estado) ___ 4. Cartoneando/Cirujeando ___ 1. 5. Otras (especificar): _____ ___

		Cantidad de alimentos	Tipo de alimentos
(47)	**En comparación con el año 2008 ¿el tipo o cantidad de alimentos que está consumiendo este año son diferentes?** Circular las opciones de tipo y cantidad de alimentos que correspondan	1. Igual cantidad 2. Menos 3. Más	1. Igual tipo 2. Más variada 3. Menos variada

		Niños	Mujer
(48)	**En general, ¿cuántas comidas tienen por día usted y los niños?** Considere **comidas** a las ingestas más abundantes y elaboradas (ej. almuerzos en el CRECER o comedor) y **colaciones** a ingestas poco abundantes (ej. un vaso de leche, unas galletas, una golosina)	Nº. de comidas: _____ Nº de colaciones: _____ Total: _____	Nº. de comidas: _____ Nº de colaciones: _____ Total: _____

(49)	**¿Notó algún cambio en los precios de los alimentos en el último año?**	SI NO
(50)	**Con el precio de los alimentos, ¿cómo hacen para salir adelante?** Elegir todas las opciones que correspondan.	**Estrategias utilizadas actualmente** **Desde el último año**
(51)	**¿Alguna de las formas que utiliza para salir adelante la empezó a practicar durante este último año?** Señalar entre las opciones elegidas cuáles se iniciaron en el último año.	**1.** Asiste a comedores 1. SI **2.** Busca Ayuda del Estado (planes y/o cajas) NO 3. Compra comida más barata 2. SI 4. Cartonea/cirujea NO 5. Reduce gastos de otro tipo 3. SI 6. Come menos que antes NO 7. Otros (especificar) _____ 4. SI NO 5. SI NO 6. SI NO 7. SI NO
(52)	**¿Cuántas personas aportan dinero al hogar?**	Nº: _____
(53)	**Aproximadamente , el ingreso de su hogar sería**	1. Menos de $500

	de:	2. $501 a $1000
		3. $1001 a $1500
	Elegir sólo una opción.	4. $1501 a $2000
		5. $2001 o más
		6. No sabe / No responde
(54)	**¿En promedio, cuánto del ingreso familiar se gasta en comida?** Elegir sólo una opción.	1. Nada o casi nada 2. Menos de la mitad 3. La mitad aproximadamente 4. Más de la mitad 5. Todo o casi todo

Recuerde hacer firmar el consentimiento antes de retirarse del hogar.