

UNIVERSITY OF CALIFORNIA

Los Angeles

Variations in Satisfaction with Access to Healthcare for

Women in Bolivia and Throughout Eighteen

Latin American Countries

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Health Services

by

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ABSTRACT OF THE DISSERTATION

Variations in Satisfaction with Access to Healthcare for  
Women in Bolivia and Throughout Eighteen  
Latin American Countries

by

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Doctor of Philosophy in Health Services

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Professor Jack Needleman, Chair

**Aim:** Women are faced with a number of health risks and vulnerabilities particular to their gender which impact their access to healthcare. The aim of this study was to assess variations in satisfaction with access to healthcare for women in Bolivia and throughout eighteen Latin American countries and demographic and contextual level variables associated with differences in satisfaction.

**Data and Methods:** Data from the Latinobarometro Survey and World Health Organization country indicators for the 2004-2007 periods was obtained for eighteen countries providing a sample of 37,971 women. Multiple linear and non-linear regression models examined the association of satisfaction with access and health condition, income, health insurance, location of home, ethnicity and national levels of healthcare spending per capita.

**Results:** In multivariate analyses, lower levels of satisfaction with access were associated with lower income, poorer health condition and being uninsured or having public insurance (compared with having private insurance). Women living in rural and peri-urban areas are generally more satisfied with access to care than those living in provincial capitals. When the sample is stratified by health condition, those in poor or fair health are less satisfied, even when they have greater income or are better insured (private) or taking into account the country they live in. Country to country variations in satisfaction with access to healthcare are wider for women whose income is insufficient, women living in the peri-urban areas and those lacking health insurance. Greater national healthcare spending per capita does not guarantee satisfaction for women in the region.

**Conclusions:** As women continue to be the first educators, caretakers and protectors of children, their role is fundamental to any effective development strategy. The primary focus of health policy in Latin America should be to improve equitable access for women to high quality healthcare. Satisfaction with access to healthcare is a signal of health system performance, and this study finds substantial room for improvement. Health information systems are needed to compile and analyze data on an ongoing basis to better measure women's access to and use of health services to aid decision-making on improving healthcare systems.

The dissertation of Nadim Ouladi Nikravan is approved.

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2012

*“Regard man as a mine rich in gems of inestimable value. Education can, alone, cause it to reveal its treasures and enable mankind to benefit therefrom.”*

BAHÁ'U'LLÁH

Dedicated to my parents and sister,  
who have been true exemplars and have taught me the path to follow to serve mankind.

Dedicated to all those students out there in the world who have been denied the  
basic human right to education because of their beliefs, race, class, creed or gender.  
I am confident the time will soon come when you will become beacons of light to the world.

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FRIEDRICK RÜCKERT

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## CHAPTER 1: INTRODUCTION

The right to health, as a human right, has been distinctly recognized by the World Health Organization and although its definition is somewhat broad, its interpretation by national governments and health authorities in various countries has usually been mostly restricted to the right to healthcare access. Every year more than 22,000 women die as a result of complications from pregnancy and childbirth in Latin America, being the majority of these deaths preventable.<sup>1</sup> Ensuring access to effective healthcare for all, especially for women and children, is definitely a giant step forward. However, this step has yet to be taken by the authorities in many developing countries, especially the more impoverished ones, for the right to health would call for resources and policies to provide adequate and accessible services and support for women facing various health risks with the great promise to improve their health and well-being.<sup>2</sup> While women continue to be the first educators, caretakers and protectors of children, the study of satisfaction with access to healthcare in the region can prove instrumental as great strides could be made to reduce these rates if access to health services is adequate and effective.<sup>3,4</sup>

More importantly, in light of the recent recognition of the role of socioeconomic and political factors in population health, the right to health must be understood as the right to all economic, social, and political entitlements that so fundamentally define and shape our health and well-being. Women, and the poor majority, would greatly benefit from policies aimed at the eradication of poverty, income redistribution through social security systems, recognition of their reproductive rights, abolition of all discriminatory social barriers to ownership and education and effective participation in social as well as political domains. In this regard, this study intends to explore and assess women's satisfaction with access to healthcare in Bolivia and Latin America.

Over the last 20 years, research on various determinants of health, that go well beyond the traditional biomedical and behavioral approaches to health and well-being have gained significant momentum. A greater attention has been focused on the emerging paradigm of social determinants of health which include but are not limited to socioeconomic (i.e. income, poverty level, education level, employment status, housing), psychological (i.e. childhood development, social cohesion and inclusion) and social (i.e. race, gender, equitable access to healthcare) factors.

#### I. ACCESS TO HEALTHCARE AND SATISFACTION

The concept of access is central to much of health policy and is referred to extensively in studies of health services utilization and satisfaction. Nevertheless, the concept has been used in various ways by researchers and policymakers alike. It has been proposed that access is a measure of the "fit" between characteristics of providers and health services and characteristics and expectations of clients, and that this concept includes five reasonably distinct dimensions: availability, accessibility, accommodation, affordability and acceptability.<sup>5</sup> In addition, access can also be referred to as effective access, when utilization studies show that its use improves health status or consumer satisfaction with services, while efficient access is achieved when the level of health status or satisfaction increases relative to the amount of healthcare services consumed.<sup>6</sup> These definitions provide a framework for the research of health service utilization as well as patient satisfaction toward healthcare providers and services.<sup>7</sup> In this regard, variations in access are presumed to influence not only patient satisfaction, but service utilization and provider practice patterns as well. These outcomes are interrelated system characteristics, which could affect patient satisfaction negatively and may also reduce utilization, either directly or through the mechanism of satisfaction. Low availability of providers may result in demands on the practicing physicians that cannot be met, and this in turn may influence practice patterns of these physicians too.<sup>8</sup>

Problems with access, or more specifically with any of the component dimensions of access, are presumed to influence clients and the system in three measurable ways: 1) utilization of services, particularly entry use, will be lower, other things being equal; 2) clients will be less satisfied with the system and/or the services they receive; and 3) provider practice patterns may be affected (such as when inadequate supply resources cause physicians to curtail preventive services, devote less than appropriate amounts of time to each of their patients or use the hospital as a substitute for their short supply). While it is necessary to examine the concept of access in terms of all of these effects, the studies in question will focus only on the second, patient satisfaction per se.<sup>9</sup>

However it must be noted that satisfaction with healthcare access can span a large number of different elements, of both a process and output nature. Women may be satisfied with the existence of a particular service or the availability of certain services that meet their needs. At the same time, they may also be satisfied with the information concerning services, the accessibility and friendliness of the service providers they meet, the competence of service personnel, the fairness, effectiveness and efficiency of the services or even other factors.<sup>10</sup> They may however be more concerned with the output of the service than with the features of the process. Friendliness, accessibility and competence mean very little for some people if they don't get what they want, while others will accept an unsatisfactory output if they see the process as appropriate. The situation regarding service delivery and satisfaction is, of course, further complicated by the fact that people's needs and perceptions of what services should provide vary. Some will be satisfied with little, while others will be dissatisfied with quite a lot.<sup>11</sup>

## II. WOMEN

As research on women's health has expanded over the years, women in developing countries might be faced with a greater number of threats when compared to men. Some of these threats may be



situational but most of them are deeply rooted in the social structures that reproduce and perpetuate stratified societies in which systematic inequities and discrimination against women are tolerated.<sup>12</sup>

Some of the most important risks are outlined as follows:

*a) Risks of violence and sexual exploitation*<sup>13,14,15,16,17</sup>

One of the major risks faced by women is sexual exploitation, such as coercion into unsafe sexual relationships, rape, forced pregnancy, female genital mutilation, trafficking and sexual slavery, and violence by intimate partners and non-partners.<sup>18</sup> For example, in certain situations, like during humanitarian crises, girls and women who are faced with limited economic opportunities may be forced into sexual alliances with military forces, including peacekeepers and humanitarian personnel, to survive or support themselves and their families.<sup>19</sup> Violence against women has been documented in many studies. The World Health Organization reported that the proportion of ever-partnered women who had ever experienced physical or sexual violence by an intimate partner ranged from 15-71%; in comparison, the percent of non-partner violence among women over the age of 15 ranged from 5% to 65%.<sup>20</sup> As a consequence, these women suffer from a variety of injuries including permanent disabilities, sexually transmitted infections, HIV/AIDS, unwanted pregnancies, miscarriages, depression, post-traumatic disorder, suicide and other.<sup>21</sup>

*b) Reproductive health risks*<sup>22,23</sup>

Each year, approximately an estimated 210 million women have life-threatening complications of pregnancy, often leading to serious disability, and a further half a million women die in pregnancy, child birth, and the puerperium, nearly all of them in developing countries.<sup>24</sup> In addition, each year 80 million women have unwanted or unintended pregnancies, 45 million of which are terminated of which 19 million are unsafe, and about 68,000 women die every year from complications from unsafe abortions.<sup>25,26</sup> Furthermore, an estimated 340 million new cases of four common sexually transmitted bacterial and protozoan infections are acquired every year, contributing to infertility of

more than 180 million couples in developing countries, while there are approximately 5 million new HIV infections and 257,000 deaths from cervical cancer, which altogether add to the enormous burden of morbidity and mortality related to the reproductive role of women.<sup>27</sup>

*c) Health risks of child rearing and domestic work*<sup>28,29,30</sup>

In the absence of institutional care outside of the family, women in most developing countries are expected to take care of their many children, often without any support from other members of the family, while also being responsible for doing most of domestic chores, such as preparing food, and providing comfort for their husbands. This generally prevents women from seeking paid employment outside the home. However, when they manage to obtain paid work in the labor market, they are most often doubly burdened by their economic and domestic roles. Moreover, in rural areas of many developing countries, women work the land along with their household duties. The toll these factors have on women's health, though significant, is not easy to quantify.<sup>31</sup>

*d) Discriminatory socio-cultural practices and attitudes toward women*<sup>32,33</sup>

Many societies have proven a certain degree of discriminatory biases against women. Such biases are often deeply entrenched in social norms and cultural rituals of various societies.<sup>34</sup> Traditional societies that are typically underdeveloped witness a more pronounced prevalence of discriminatory behaviors toward women.<sup>35</sup> Various forms of female genital mutilation, marriage of under-age girls, honor killings, sex-selective abortion, female infanticide, domestic violence, and polygamy as well as denying entitlement to land and other property or even inheritance are among some of the discriminatory socio-cultural practices.<sup>36</sup> The physical and mental health-related consequences of such discriminatory practices lead women into greater depths of poverty, insecurity, and inequality.

*e) Poverty and economic inequalities*<sup>37,38,39</sup>

Poverty is a fundamental challenge in our world today for despite a high and growing global average income, billions of individuals are still condemned to lifelong severe poverty which brings with it

shorter life expectancy, social exclusion, ill health, illiteracy, dependency and effective enslavement.<sup>40</sup> Poverty prevents people of their very basic necessities of life, assaulting their human dignity and minimizing their capacity to sustain life and avoid illness and death.<sup>41</sup>

Although poverty and economic inequalities are not unique to women, it is generally women who shoulder a much bigger burden of deprivation and lack of economic opportunities. Approximately 1 billion people live in poverty around the world, and a great majority of them are women, while the annual death toll from poverty-related causes is around 18 million.<sup>42,43</sup> The literature on development is replete with narratives and evidence on women's economic subordination, insecurity and vulnerability. It must be emphasized here that women's impoverishment and economic dependence is the main contributor to the other health vulnerabilities and risks to which women and girls are subjected.<sup>44</sup> In many developing countries women have the added responsibility of feeding their children out of their own share of the food, which further undermines their health.<sup>45</sup> The persistence of unjust socioeconomic conditions and their implications for ill health of the poor has been referred to as “structural violence,” which is a fundamental violence that allows and perpetuates all other manifestations of violence toward the weak and the oppressed, such as women.<sup>46</sup> If women are to gain their rights to dignity, independence, self-worth, and be able to actualize their selves and live a full, meaningful and healthy life they so deserve, they have to be free from the subjugation of structural violence and their human rights reinstated.

With this in mind, this study intends to explore the implications of women's satisfaction with access to healthcare in Bolivia and Latin America. As women are faced with a number of risks and vulnerabilities that are particular to their gender which may impact their access to healthcare, the implications of such relationship would suggest the extent in which a country could provide a new approach to increasing access to adequate health provision.<sup>47</sup> Furthermore, as the transition to better health systems takes place in Bolivia and Latin America, the intended research may contribute to the

body of literature by providing some evidence on the provision of services intended for the general public, such as access to healthcare. As satisfaction with access to increases, so will the transition to better health systems be reaffirmed, for certainly accountability on the part of these governments will surely lead to a more effective transition process. In addition as the provision of other public or private services in the region increases (i.e. education) this can provide the unique opportunity in achieving greater development in the social arena.

## **CHAPTER 2: VARIATIONS IN SATISFACTION WITH ACCESS TO HEALTHCARE FOR WOMEN IN BOLIVIA**

### **A. BACKGROUND ON BOLIVIA**

#### a) Health infrastructure and organization

The fragmented nature of the health system in Bolivia has created an immense lack of coordination and inequity. The health services organization is not population-based nor have the health needs of the population been adequately or sufficiently assessed.<sup>48</sup> The lack of mechanisms to stimulate inter-sectorial coordination and the fact that various other players are active in the healthcare arena (which do not fall under the purview of public health regulations and policies) have led to a situation in which the range of activities undertaken by these groups correspond more to institutional priorities and obligations and do not necessarily contribute to broad, long-term national public health objectives. This fragmentation and lack of coordination in the healthcare system is one of Bolivia's most insurmountable obstacles towards implementing universal healthcare coverage for the country.<sup>49</sup>

The country's health services are organized into networks that include four levels of operation (national, departmental, municipal, and local) and three levels of care (primary, secondary and tertiary). Health services are concentrated in the urban areas (health posts, centers, and hospitals) and characterized by gaps in access to and quality of care, particularly for vulnerable groups, such as older adults, children who work or live on the street, and those living in extreme poverty (approximately 58% of the population). In the marginal urban areas, there are no hospitals, few health centers and only a limited number of health posts and trained personnel exist. In large expanses of rural areas, the scarcity of physicians has led to the assumption by nursing auxiliaries of the responsibility in the provision of health interventions. In 2004, there were 1.29 physicians and 14 beds per 1,000 individuals. In that same year, there were 3,021 healthcare establishments in the country, of which 77.6% belonged to the public

sector, 10.7% to the social security system, 5.5% to NGOs, 3.2% to the Church, and 3% to the private sector. Of this total number of healthcare establishments, 90% were at the primary care level, 6.6% were at the secondary level, and 3.2% were at the tertiary level.<sup>\*,50</sup>

The public health insurance system covers approximately 26% of Bolivia's population of 9.5 million (21% through the National Healthcare Fund and 5% through other smaller funds).<sup>51,52</sup> It is estimated that 5%–10% of the population utilizes the services of the private sector, and that 70% of the population depends on public health sector services to access healthcare.<sup>53</sup> However, due to obstacles limiting accessibility to the public health system, it is estimated that only about one-half of this segment—or some 35%–40% of the population—is able to utilize these services.<sup>54</sup> At the same time, it is estimated that half of the population uses traditional medicine techniques, especially in rural areas, where its practice is particularly widespread.<sup>55</sup>

In 2005, the general government expenditure on health as percentage of total government expenditure was 12.4%, representing 6.9% of the gross domestic product. Per capita government expenditure on health was USD 125 (PPP) and per-capita total expenditure on health was 203 (PPP). Private expenditures on health represented 38.4% of the total health expenditures, with out-of-pocket private expenditures representing 81.4% of that amount. Social security expenditure on health as percentage of general government expenditure on health was approximately 62.1%.<sup>56</sup>

#### b) Women in Bolivia

The Bolivian Constitution guarantees equal rights for men and women, but in general, Bolivian women tend to have a lower social status than men, as many women are not aware of their rights while the boundaries of tradition remain strong. Women's literacy ratio when compared to men is 0.87, while

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\* The primary-level outpatient establishments in the public system normally include a general physician, a nurse, and nursing auxiliaries. When health problems demand specialized care the users are required to go to the general hospitals, where outpatient care and hospitalization are provided in four basic specialties: internal medicine, surgery, gynecology and obstetrics and pediatrics.

their income ratio is 0.61.<sup>57</sup> Estimates of the per capita income for 2005 was USD 1,044 with an adjusted PPP representing USD 2,900, making it the second poorest country in Latin America.<sup>58</sup>

Maternal and child mortality and morbidity remain one the most important health challenges in Bolivia. In 2006 the maternal mortality rate was 420 per 100,000 while the child under-five mortality rate was 69 per 1,000 live births approximately.<sup>59</sup> Though this is already a high number, it becomes more shocking when disaggregated in terms of rural and urban mortality rates. According to Womankind Worldwide, the maternal ratio for Rural Bolivia is 602 out of 100,000.<sup>60</sup> What makes this number more tragic is that it is unnecessarily high, as most deaths related to pregnancy and childbirth in the country could be prevented through appropriate access and use of prenatal health services.<sup>61</sup>

According to the 2003 National Demographic and Health Survey, 16% of Bolivian women aged 15–19 years old had experienced at least one pregnancy, and one in every three had had children before the age of 20.<sup>62</sup> The highest percentage of adolescent pregnancies occurred among women without a formal education (47%); by place of residence, being highest percentages of pregnancies among rural women (22%). Approximately 30% of all health services used by women in the country were for problems related to complications of pregnancy including abortion, childbirth, and puerperium.<sup>63</sup>

In the area of family violence, it has been estimated that in 2003, in the cities of La Paz, Cochabamba, Santa Cruz, and El Alto, 7 of every 10 adolescents suffered psychological violence at home, manifested by reprimands, yelling, insults, indifference, and prohibition from leaving the house. For example, a study of six Bolivian municipalities revealed that 55% of married women or women in long-term relationships and of reproductive age had experienced violent acts (physical, sexual, and psychological) committed against them by their intimate partners.<sup>64</sup> At the same time, child abuse is a problem of growing concern, affecting as many as one out of every three boys and girls.<sup>65</sup>

In the same period, life expectancy at birth increased from 63 years (2001) to 64.9 years (2005). The low increase is due to high infant mortality, 54 per 1,000 live births, principally because of the

component of neonatal death. With regards to the birth rate, the 2003 National Demographic and Health Survey found that on average women had wanted to have 2.5 children and actually had 4.2. This difference was greater in rural areas, where women had wanted 3.2 children and had 6.4, when compared to urban areas, where women had wanted 2.2 children and actually had 3.3.<sup>66</sup> The high fertility rate is greatly due to women's lack of autonomy in making decisions, exercising their sexual and reproductive rights and limited reproductive healthcare access.<sup>67</sup>

c) Access to healthcare for women in Bolivia

In recent years, Bolivia has promoted important public policies regarding social insurance with the rationale of delivering benefits packages for health recovery and protection, with particular focus on maternal and child health. These insurance schemes were initiated in the mid-1990s with the introduction of the Basic Health Insurance mechanism, and more recently, with the passage of legislation for a universal maternal and child health insurance system (2003). In the latter case, the goal was to remove economic barriers preventing access to healthcare, especially in urban and rural centers where health services are available for women. However, since the country's native, rural, and isolated population segments remain largely excluded from social protection systems, access to this health insurance plan has been much more difficult. A 2004 study by the Economic and Social Policy Analysis Unit showed that 70% of the Bolivian population still experiences some form of exclusion from social protection systems for health.<sup>68</sup>

In January 2003, the government implemented the Universal Maternal and Child Health Insurance (SUMI) legislation, which established comprehensive health benefits free of cost to all pregnant women from the start of gestation to six months following childbirth and to children from birth to age five. The maternal and child healthcare programs, as well as those for nutrition and sexual and reproductive health, were included in the public insurance scheme as packages of established



benefits. The benefits were provided at the various levels of the National Health System and the social security system with the aim of achieving a satisfactory implementation of health sector policies. Furthermore, the Extensa Program established by the Ministry in mid 2003, aimed to increase health coverage in remote rural communities through the use of mobile health teams financed by the World Bank. This program was meant to coordinate all the activities, whether technical, logistical, or administrative, with preexisting national health programs and projects under the Ministry of Health.<sup>69</sup>

While women continue to be the first educators, caretakers and protectors of children, the study of healthcare access satisfaction in the region can prove instrumental as great strides could be made to reduce these rates if health services access is adequate and effective.<sup>70,71</sup> Given this backdrop, the aim of this study will be to assess variations in healthcare access satisfaction for Bolivian women by taking into account various demographic and contextual variables obtained through a survey in the 2004-2007 period.

## **B. RESEARCH QUESTIONS AND HYPOTHESES**

How do demographic factors affect healthcare access satisfaction for Bolivian women? As significant variations may exist, the main hypotheses that will be tested in the current study include:

- Greater income is positively associated with healthcare access satisfaction for Bolivian women, after adjusting for other factors (employment, marital status, education, age, health condition, chief income earner status, health insurance/expenses coverage, ethnicity/mother tongue, location of home and characteristics of home).
- Indigenous Bolivian women are less likely to be satisfied with their healthcare access, after adjusting for other factors (poverty level, employment, marital status, education, age, health condition, chief income earner status, health insurance/expenses coverage, location of home and characteristics of home).

- Women living in urban areas are more likely to be satisfied with their healthcare access, after adjusting for other factors (poverty level, employment, marital status, education, age, health condition, chief income earner status, health expenses coverage, ethnicity/mother tongue and characteristics of home).
- Women in better health condition are more likely to be satisfied with their healthcare access, after adjusting for other factors (poverty level, location of home, employment, marital status, education, age, chief income earner status, health expenses coverage, ethnicity/mother tongue and characteristics of home).
- Women with better health insurance are more likely to be satisfied with their healthcare access, after adjusting for other factors (poverty level, location of home, employment, marital status, education, age, health condition, chief income earner status and characteristics of home).

Through the intended work it is hypothesized that Bolivian women living in greater poverty are less likely to be satisfied with their access to healthcare as well as those living in rural areas, where language barriers and health infrastructure challenges certainly exist. However, Bolivian women living in urban areas are more likely to be satisfied, as health infrastructure is more readily available, although constraints continue to hamper access to many indigenous women living in the urban areas given their economic situation (migrants). In addition, Bolivian women in worse health condition are less likely to be satisfied with their healthcare access, while those who have access to better health insurance schemes and have greater coverage are more likely to be satisfied with their healthcare access.

### **C. CONCEPTUAL MODEL** <sup>72,73,74,75,76,77,78</sup>

The conceptual model that provides the theoretical foundation for the study proposed is derived from the Andersen Behavioral Model which focuses on factors that influence access to

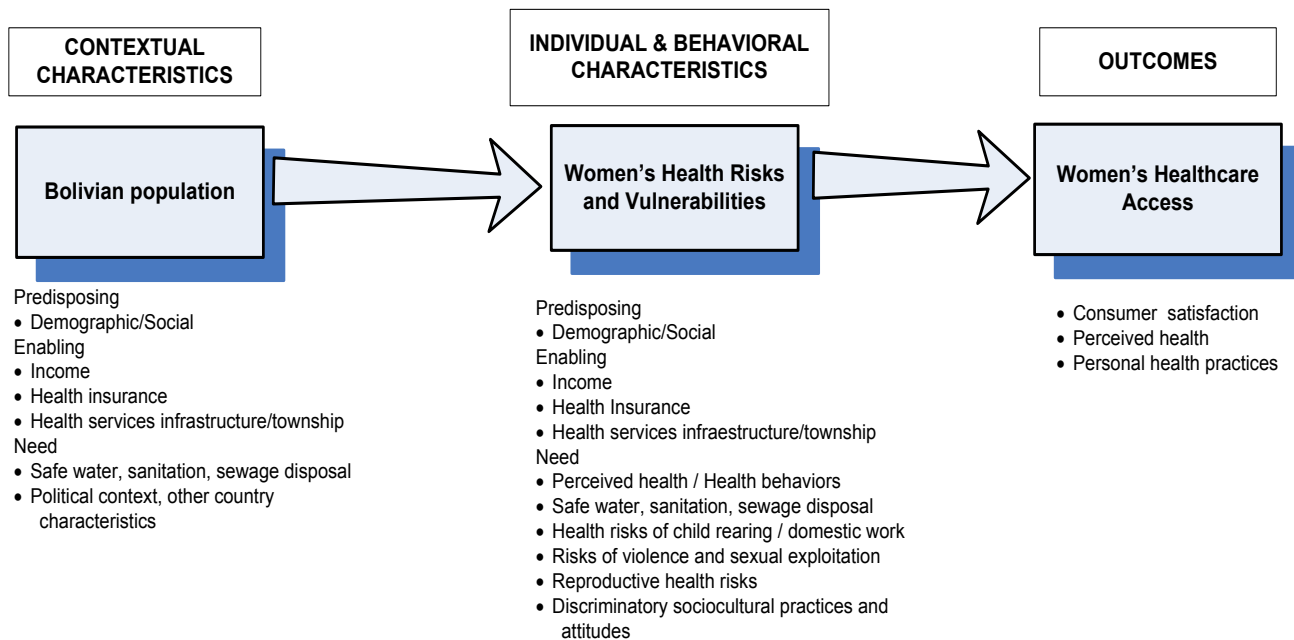
healthcare at the contextual and individual levels and, consequently, how satisfaction with access to healthcare is influenced by such.

Numerous factors affect satisfaction with access to healthcare. The individual-level factors are the direct characteristics that have an impact on healthcare access for women in Bolivia. Relevant family or household-level factors in this domain include family income, level of education, employment status and/or type of work, location of home (urban or rural), mother tongue and marital status (which has an effects on income and employment). These factors are included as predisposing and enabling characteristics, as there are factors which “a priori” influence access to healthcare and, therefore, satisfaction. When assessing satisfaction with access to healthcare, self perceived health condition by the female population becomes an important factor to help predict morbidity and mortality. A large number of studies have demonstrated that a person’s own appraisal her/his general health is a powerful predictor of future morbidity and mortality, even after controlling for a variety of physical, socio-demographic and psycho-social health indicators.<sup>79,80,81</sup> The ‘multidimensional’ nature attributed to self-reported health questions mainly translates to it being a holistic measure of health status.<sup>82</sup> This in turn will lead to a better understanding of healthcare access needs, behaviors and satisfaction.<sup>83,84</sup> Beliefs by the population based on traditions and ethnicity, are also important as they delineate the behavior when accessing healthcare services in a country like Bolivia.

Contextual factors are those that impact all persons in a certain geographic unit and may affect their access to healthcare and, therefore, their satisfaction. Although the main geographic unit of analysis in this study is Bolivia, differentiations can be made by the size of the towns and cities in which respondents live as health services tend to be more readily available in the larger urban areas. In addition, these can be categorized as rural or urban and specific characteristics of the home are obtained (access to drinking water and sewage system) which in themselves provide contextual predisposing and enabling characteristics. These public health measures, such as access to safe water,

sanitation and sewage disposal are known to be more important in disease prevention and reduced mortality than medical interventions in developing countries. Such health measures require nationwide investments in physical infrastructure, environmental safety, as well as educational and extension programs, that need to be directed mostly at women as the caregivers of children and other household members. In this regard, the political context becomes instrumental as it provides the characteristics of “need” that such systems are expected to uphold given their citizens' rights and opportunities, while providing mechanisms by which such rights are implemented (education, sewage, sanitation, etc.). In the extent that they do so, they create an atmosphere of mutual respect and a supportive environment which breeds positive feelings of self-worth, optimism, and hopefulness among their population. This is particularly important for women whose rights and dignities have historically been denied by the tyranny of authoritarian regimes as well as by rigid social traditions as supported by these regimes. Women are increasingly finding their rightful place in various arenas of social and political life and are demanding their rights to self-determination and their entitlements to an equitable share of society's resources.

**Exhibit 1: Schematic model for satisfaction with access to healthcare for women in Bolivia.** <sup>8586,87</sup>



## **D. STUDY DESIGN**

Although ideally the causal relationship stated in the hypotheses between income, ethnicity, location of home, health condition and health insurance type satisfaction with access to healthcare would be best ascertained through a longitudinal study, the lack of such study for Bolivia and Latin America in general is evident. However a cross-sectional survey containing the relevant information and covariates as found in the Latinobarometro survey can be employed to test these relationships to obtain a better understanding of satisfaction levels of healthcare access for women in the country.

As the survey data is based on self reported conditions by respondents selecting categories that define their situation relevant to their life and experiences, and such information is about current point-in-time occurrences, the study remains quasi-experimental and retrospective in nature. These study designs are generally used for associative studies, as the survey does not randomly assign persons to one group or another, but rather accepts the composition of these groups as given for the factors contributing to the differences in the population within those groups through statistical means, (such as adjusting for different covariates). In this regard, a number of statistical methods allow to control for selection and aid in making causal inferences.<sup>88</sup>

### **a) Data Sources**

The Latinobarometro survey will provide the necessary data to allow for the processing and analyses of information. This survey is an annual public opinion survey that involves 19,000 interviews in 18 Latin American countries each year, representing more than 400 million inhabitants, and researches the development of societies, economies and democracy in the region, using indicators of opinion, attitudes, behavior and values. The sample size consists of approximately 1200 interviews for Bolivia per year and it is self-weighted with respect to sex, age and educational level making it fully

representative of the Bolivian adult population (18 and over).<sup>89</sup> Only face to face interviews are carried out in September every year and data is simultaneously gathered throughout the region.

#### b) Sample Design

For the initial study information on Bolivia will be analyzed for the years in which the healthcare access questions were included in the survey (2004-2007). The sample size for the country is equal to 1,200 cases per year, with a sample error of +/- 2.8% and a 95% confidence interval. The coverage is national and includes the totality of the population 18 and over representing both urban and rural alike. The sample is obtained matching the distribution of the population in the country as per census data of 2001, representing 64% urban and 36% rural. The sampling is a modified probabilistic sample done in phases in the urban (4) and rural (5) areas. The different years will be pooled to provide with greater robustness in the analyses.

<b>SAMPLING</b>	<b>URBAN</b>	<b>RURAL</b>
First phase	Selection of localities by department type and area	Selection of localities by department and type of area
Second phase	Selection of clusters (blocks) using systematic probabilistic sampling and random starting points in sample framework ordered by districts, zones and blocks.	Selection of zones using systematic probabilistic sampling and a random starting point. From the locality's central square (plaza) the interviewer identifies its zones (north, south, east and west) and starts in one of these zones as indicated on his/her route map.
Third phase	Selection of dwellings using systematic probabilistic sampling (every third dwelling) and a random starting point.	Selection of clusters (blocks) using systematic probabilistic sampling and a random starting point in a sample framework ordered by districts.
Fourth phase	Selection of interviewees by sex, age and educational level quotas	Selection of dwellings using systematic probabilistic sampling (every third dwelling) and a random starting point.
Fifth phase		Selection of interviewees by sex, age and educational level quotas

Note: Sample is self-weighted with respect to sex, age and educational level and so no weighting factors are used. All questionnaires were checked for errors in the data collection stage. Subsequently, open-ended questions were codified using the code table previously prepared by transcribing 30% of the answers. In order to control coding, 30% of work was checked by critical editor.<sup>†</sup>

<sup>†</sup> In the main cities, each of the blocks contained in the sample framework of APOYO Opinión y Mercado has been assigned a predominant socioeconomic level. In these cities, stratification proportional to each block's predominant socioeconomic level was used in the selection program.

## E. MEASURES

The variables in the models for the study can be grouped accordingly per the dimensions of the conceptual framework which include contextual level characteristics, individual and behavioral characteristics and the outcomes. In that regard by using the variables contained in the Latinobarometro survey we have the following:

- *Dependent variable:* Healthcare access satisfaction which includes four levels: very satisfied, rather satisfied, not very satisfied and not at all satisfied.
- *Independent regressors of interest:* variables which define the dimensions under analysis:
  - Income which includes four levels: sufficient that you can save, just sufficient (no major problems), not sufficient (have problems) and not sufficient (have major problems).
  - Ethnicity/mother tongue which includes Spanish, Portuguese, indigenous and other.
  - Location of home (urban, peri-urban or rural), which includes four levels by populations: rural from 5000 to 20000, peri-urban from 20001 to 100000, large urban >100000 and provincial capital.
  - Self-reported health condition which includes five levels: very poor, poor, average, good and very good.
  - Health insurance/expenses coverage, which includes no insurance, public insurance and private insurance.
- Other regressors of interest will include: poverty level, employment marital status, education, age, chief income earner status, mother tongue, interview language and characteristics of home.

All these variables which are categorical or dichotomous and their hypothesized effects on healthcare access satisfaction for Bolivian women are described in the table below.

**Exhibit 2: Theoretical predictors and hypothesized effects on satisfaction with access to healthcare for women in Bolivia.**<sup>90</sup>

Theoretical Predictor	Hypothesized Effect on the Dependent Variable	Measured Variable	Data Source
<b>Individual Level Factors</b>			
Household income	Greater income leads to greater satisfaction with healthcare access	1) it is sufficient that you can save 2) it is just sufficient, no major problems 3) it is not sufficient, you have problems 4) it is not sufficient, have major problems	Latinobarometro 2004-2007
Age	Older persons will have less satisfaction with healthcare access	1) 18-25 2) 26-40 3) 41-60 4) 61 +	Latinobarometro 2004-2007
Ethnicity (proxy mother tongue)	Indigenous persons will have less satisfaction with healthcare access.	1) Spanish (white) 2) Portuguese -3) indigenous 4) other	Latinobarometro 2004-2007
City size	Persons living in urban areas will be more likely to be satisfied with healthcare access	1) Rural/5000 -20000 2) Peri-urban/20001-100000 3) Large urban>100000 4) Capital	Latinobarometro 2004-2007
Marital status	Persons who are married or living with partner will require greater access and will likely be less satisfied with healthcare access	1) married-living w/partner 2) single 3) separated-divorced-widower	Latinobarometro 2004-2007
Health status	Persons with better health status are more likely to be satisfied with healthcare access	1) very good 2) good 3) average 4) poor 5) very poor	Latinobarometro 2004-2007
Coverage of health expenses	Persons who have private insurance will be more likely satisfied with healthcare access	1) private insurance 2) public insurance 3) no insurance	Latinobarometro 2004-2007
Education Level	Persons with greater education will have better access to healthcare and therefore more likely to be satisfied with healthcare access.	1) Illiterate 2) Incomplete primary 3) Complete primary 4) Incomplete Secondary, technical 5) incomplete Secondary, technical 6) Incomplete university 7) complete university	Latinobarometro 2004-2007
Employment	Persons who are employed will have better access to healthcare and therefore will more likely be satisfied with their healthcare access.	1) self employed 2) salaried employee in a public company 3) salaried employee in a private company 4) temporarily out of work 5)retired 6) don't work-responsible for shopping and house work 7) student	Latinobarometro 2004-2007
Chief income earner	Persons who are the chief income earners will be more satisfied with their healthcare access	1) Yes 2) No	Latinobarometro 2004-2007
Socioeconomic level	Better socioeconomic level will lead to greater satisfaction with healthcare access	0 no answer / 1 very good / 2 good / 3 not bad /4 bad /5 very bad / 9 not applicable	Latinobarometro 2004-2007
Satisfaction with life	Persons who are more satisfied with their lives will have greater satisfaction with healthcare access	1) very satisfied 2) fairly satisfied 3) not very satisfied 4) not at all satisfied	Latinobarometro 2004-2007
<b>Contextual Level Factors</b>			
Ownership of home	Persons who own their home will have access to various utilities and will more likely be satisfied with their healthcare access.	1) yes 2)no	Latinobarometro 2004-2007
Access to drinking water	Persons who have access to drinking water will need less healthcare and will likely be more satisfied with their healthcare access	1) yes 2)no	Latinobarometro 2004-2007
Sewage	Persons who have access to sewage will need less healthcare and will likely be more satisfied with their healthcare access	1) yes 2)no	Latinobarometro 2004-2007
TV ownership	Persons who own have access to a TV will be better informed of their options and will more likely be more satisfied with healthcare access.	1) yes 2)no	Latinobarometro 2004-2007



### a). Methods and Analyses

Summary statistics were obtained for all measures with frequency counts for each of the categorical and dichotomous variables. Although age was the only continuous variable, it had been re-coded (by Latinobarometro) into a categorical variable as per defining elements to different age groups. In addition, bivariate associations were analyzed a priori as these comparisons are necessary to examine the basic distributions of the population within each healthcare satisfaction category. In this regard the healthcare satisfaction variable was examined for the associations with individual-level covariates, contextual-level covariates and access outcomes. Correlation tests were also performed to ascertain any collinearity that could result from the survey questions through the respondent's answers.

Multiple linear regression and logistic regression models were used to examine the research questions for this study. In this regard, ordered logistic regression models can help in identifying the associations with multiple ordered categorical outcomes for satisfaction with access to healthcare: very satisfied, rather satisfied, not very satisfied and not at all satisfied. Through the latent variables model it is assumed that there is an unobserved underlying continuous measure of satisfaction, (latent)  $y^*$ , for which ordinal outcomes (discrete)  $y$ , are observed.<sup>91</sup> With ordered logistic models, if the value of the latent index falls within the range corresponding to a particular choice category, that category will be chosen, but if the latent index is either above or below that range, then a different category is chosen. In this case the latent variable can be thought of as the underlying probability of an outcome in any of the particular categories, an aspect on which these models build on to make analytical sense of the data, as one only observes whether the value of the underlying measure exceeds the threshold or not.<sup>92</sup> In this regard, the advantage of applying an ordered logit over a linear regression model is that the latter may generate predictions that might be out of the feasible range and also have heteroskedastic standard errors.<sup>93</sup> However, a comparison between both linear and logistic model sets can provide with

a better understanding of the consistency and efficiency of the coefficients while also allowing for ease of interpretation in responding the research questions.

Only one set of coefficients was estimated for the ordered logistic model. As the proportional odds assumption failed (OModel and Brant), a generalized ordered logistic model was used allowing the parameters to vary across categories, although individual analyses on all variables proved that only a few variables did not fulfill the proportional odds assumption. Therefore, only variables that failed the proportional odds assumption were allowed to vary (through the `autofit` command in Stata 10) using a backward stepwise selection procedure, starting with the least parsimonious model and gradually imposing constraints. Although these stepwise procedures can capitalize on chance, this option provides an empirical means of identifying where assumptions may be violated. As the coefficient estimates determining the move between outcome categories  $j$  and  $k$  are constrained to the same as those determining the move between outcome categories  $r$  and  $s$  (for all  $j, k, r$  and  $s$ ), we obtained  $m-1$  sets of estimates with  $m$  possible outcome categories. In this case the omitted outcome category was the lowest and given that the proportional odds held for most of the parameters, resulting in  $R-1$  different sets of coefficient that were not significantly different from one another, the Wald test for the equality of these coefficients was applied to estimate the model (using `gologit2`). Post-estimation tests were also performed to ascertain that the coefficients on the different variables were individually and jointly significant and most variables were jointly significantly different from 0.

As the statistical significance and relative magnitudes of the multiple linear regression models and the generalized ordered logit model proved comparable, a final set of stratified analyses were performed. These treated satisfaction to healthcare access as a continuous variable for ease of interpretation and consistency of results while being stratified by the regressors of interest, income, ethnicity, location of home, health condition and health insurance. Stata 10 (version 9) was used for all the analyses in question and the results are reported in the next section.

## RESULTS

### a) Descriptives

The sample characteristics of women interviewed in the Latinobarometro survey for the years 2004 to 2007 are described in the table below.

**Exhibit 3: Sample characteristics of Bolivian women interviewed from 2004 to 2007.**

Characteristics	Number (%)
<b>N=2222 women</b>	
<b>Year</b>	
2004	543 (24.44%)
2005	576 (25.92%)
2006	541 (24.35%)
2007	562 (25.29%)
<b>Individual level factors</b>	
<b>Household income</b>	
Not sufficient, major problems	326 (14.67%)
Not sufficient, have problems	947 (42.62%)
Just sufficient, no major problems	780 (35.10%)
Sufficient that you can save	169 (7.61%)
<b>Age</b>	
18-25	597(26.87%)
26-40	805(36.23%)
41-60	585(26.33%)
61+	235(10.58%)
<b>Ethnicity (mother tongue)</b>	
Spanish	1411 (63.50%)
Indigenous	739(33.26%)
Other	72(3.24%)
<b>Marital status</b>	
Married or living w/partner	1398(62.92%)
Never married	539(24.26%)
Separated/divorced/widower	285(12.83%)
<b>Education level</b>	
Illiterate	320(14.40%)
Incomplete primary	761(34.25%)
Complete primary	301(13.55%)
Complete secondary, technical	632(28.44%)
Complete university	208(9.36%)
<b>Employment</b>	
Self-employed	781(35.15%)
Salaried employee in public company	148(6.66%)
Salaried employee in private company	179(8.06%)
Unemployed	65(2.93%)
Retired	44(1.98%)
Don't work – responsible for housework	780(35.10%)
Student	225(10.13%)
<b>Chief income earner</b>	
No	1560(70.21%)
Yes	662(29.79%)
<b>Socioeconomic level</b>	
Very bad	95(4.28%)
Bad	490(22.05%)
Average	1127(50.72%)
Good	440(19.80%)
Very good	70(3.15%)
<b>Satisfaction with life</b>	
Not at all satisfied	155(6.98%)
Not very satisfied	985(44.33%)

Fairly satisfied	766(34.47%)
Very satisfied	316(14.22%)
<b>Health condition</b>	
Very poor	38(1.71%)
Poor	262(11.79%)
Average	1132(50.95%)
Good	704(31.68%)
Very good	86(3.87%)
<b>Coverage of health expenses</b>	
Private insurance	185(8.33%)
Public insurance	478(21.51%)
No insurance	1559(70.16%)
<b>Satisfaction with healthcare access</b>	
Not at all	287(12.92%)
Not satisfied	893(40.19%)
Rather satisfied	833(37.49%)
Very satisfied	209(9.41%)
<b>Contextual level characteristics</b>	
<b>City/Town size</b>	
0-20000 (rural)	779 (35.06%)
21000-100000 (peri-urban)	282 (12.69%)
100,000 + (large-urban)	932 (41.94%)
Capital (provincial capital)	229(10.31%)
<b>Home ownership</b>	
No	833(37.49%)
Yes	1389(62.51%)
<b>Access to drinking water</b>	
No	331(14.90%)
Yes	1891(85.10%)
<b>Access to sewage</b>	
No	971(43.70%)
Yes	1251(56.30%)
<b>Has a TV</b>	
No	584(26.28%)
Yes	1638(73.72%)

Source: Latinobarometro survey 2004, 2005, 2006, 2007

More than half of the Bolivian women who make up the sample of study (57.29%) have insufficient income, while only a very small percentage (7.61%) of the women interviewed have enough income that will allow them to save. In addition 63.50% of the sample is of Spanish origin while 33.26% is of indigenous origin. Only 9.36% of the sample has completed university level studies while 47.80% of the sample has completed primary and 28.44% has completed secondary, while the remaining 14.40% of the sample are illiterate. Although half of the sample is employed (self, public or private) the other half is not employed, as they either perform household chores or are students, retired or unemployed making only one in every three women (29.79%) a chief income earner in their home. While socioeconomic levels are evenly distributed through the extremes, half of the sample is not satisfied with their life in general. Approximately two of every three women have no health insurance and over half of them (53.11%) are not satisfied with their healthcare access, where the large majority (86.50%)

rates their health condition as average, good and very good. Approximately 35.06% of these women live in the rural areas, while 64.94% live in the peri-urban and urban areas of the country.

## b) Bi-variate associations

Bi-variate associations were analyzed a priori as these comparisons help in examining the basic distributions of the population within each healthcare satisfaction category. The table below shows the results:

**Exhibit 4: Bivariate associations for independent variables and satisfaction with access to healthcare for women in Bolivia.**

Characteristics	Satisfaction with healthcare access in women					P(Chi <sup>2</sup> )
	N=2222 women	Not at all	Not satisfied	Rather satisfied	Very satisfied	
<b>Household income</b>						<0.001
Not sufficient, major problems	326	88 (26.99%)	125(38.34%)	83(25.46%)	30(9.20%)	
Not sufficient, have problems	947	120(12.67%)	426(44.98%)	332(35.06%)	69(7.29%)	
Just sufficient, no major problems	780	68(8.72%)	288(36.92%)	337(43.21%)	87(11.15%)	
Sufficient that you can save	169	11(6.51%)	54(31.95%)	81(47.93%)	23(13.61%)	
<b>City/Town size</b>						<0.001
0-20000 (rural)	779	114(14.63%)	313(40.18%)	266(34.15%)	86(11.04%)	
20001-100000 (peri-urban)	282	24(8.51%)	126(44.68%)	111(39.36%)	21(7.45%)	
100,000 + (large-urban)	932	104(11.16%)	355(38.09%)	392(42.06%)	81(8.69%)	
Capital (provincial capital)	229	45(19.65%)	99(43.23%)	64(27.95%)	21(9.17%)	
<b>Year</b>						<0.001
2004	543	91(16.76%)	227(41.80%)	174(32.04%)	51(9.39%)	
2005	576	56(9.72%)	227(39.41%)	224(38.89%)	69(11.98%)	
2006	541	46(8.50%)	203(37.52%)	240(44.36%)	52(9.61%)	
2007	562	94(16.73%)	236(41.99%)	195(34.70%)	37(6.58%)	
<b>Age</b>						=0.001
18-25	597	60(10.05%)	219(36.68%)	256(42.88%)	62(10.39%)	
26-40	805	93(11.55%)	332(41.24%)	306(38.01%)	74(9.19%)	
41-60	585	89(15.21%)	246(42.05%)	195(33.33%)	55(9.40%)	
61+	235	45(19.15%)	96(40.85%)	76(32.34%)	18(7.66%)	
<b>Ethnicity (mother tongue)</b>						<0.001
Spanish	1411	137(9.71%)	554(39.26%)	577(40.89%)	143(10.13%)	
Indigenous	739	134(18.13%)	310(41.95%)	238(32.21%)	57(7.71%)	
Other	72	16(22.22%)	29(40.28%)	18(25.00%)	9(12.50%)	
<b>Marital status</b>						=0.06
Married or living w/partner	1398	182(13.02%)	564(40.34%)	526(37.63%)	126(9.01%)	
Never married	539	55(10.20%)	212(39.33%)	216(40.07%)	56(10.39%)	
Separated/divorced/widower	285	50(17.54%)	117(41.05%)	91(31.93%)	27(9.47%)	
<b>Education level</b>						<0.001
Illiterate	320	74(23.13%)	135(42.19%)	84(26.25%)	27(8.44%)	
Incomplete primary	761	113(14.85%)	308(40.47%)	273(35.87%)	67(8.80%)	
Complete primary	301	23(7.64%)	116(38.54%)	128(42.52%)	34(11.30%)	
Complete secondary, technical	632	55(8.70%)	252(39.87%)	266(42.09%)	59(9.34%)	
Complete university	208	22(10.58%)	82(39.42%)	82(39.42%)	22(10.58%)	
<b>Employment</b>						<0.001
Self-employed	781	128(16.39%)	321(41.10%)	264(33.80%)	68(8.71%)	
Salaried employee in public company	148	9(6.08%)	51(34.46%)	65(43.92%)	23(15.54%)	
Salaried employee in private company	179	15(8.38%)	79(44.13%)	76(42.46%)	9(5.03%)	
Unemployed	65	10(15.38%)	24(36.92%)	25(38.46%)	6(9.23%)	
Retired	44	7(15.91%)	18(40.91%)	10(22.73%)	9(20.45%)	
Don't work – responsible for housework	780	103(13.21%)	319(40.90%)	291(37.31%)	67(8.59%)	

Student	225	15(6.67%)	81(36.00%)	102(45.33%)	27(12.00%)	
<b>Chief income earner</b>						=0.003
No	1560	179(11.47%)	623(39.94%)	615(39.42%)	143(9.17%)	
Yes	662	108(16.31%)	270(40.79%)	218(32.93%)	66(9.97%)	
<b>Socioeconomic level</b>						<0.001
Very bad	95	13(13.68%)	45(47.37%)	31(32.63%)	6(6.32%)	
Bad	490	89(18.16%)	209(42.65%)	157(32.04%)	35(7.14%)	
Average	1127	132(11.71%)	470(41.70%)	430(38.15%)	95(8.43%)	
Good	440	47(10.68%)	146(33.18%)	184(41.82%)	63(14.32%)	
Very good	70	6(8.57%)	23(32.86%)	31(44.29%)	10(14.29%)	
<b>Home ownership</b>						=0.247
No	833	122(14.65%)	320(38.42%)	313(37.58%)	78(9.36%)	
Yes	1389	165(11.88%)	573(41.25%)	520(37.44%)	131(9.43%)	
<b>Access to drinking water</b>						=0.027
No	331	51(15.41%)	147(44.41%)	100(30.21%)	33(9.97%)	
Yes	1891	236(12.48%)	746(39.45%)	773(38.76%)	176(9.31%)	
<b>Access to sewage</b>						=0.127
No	971	130(13.39%)	391(40.27%)	345(35.53%)	105(10.81%)	
Yes	1251	157(12.55%)	502(40.13%)	488(39.01%)	104(8.31%)	
<b>Access to TV</b>						<0.001
No	584	118(20.21%)	243(41.61%)	169(28.94%)	54(9.25%)	
Yes	1638	169(10.32%)	650(39.68%)	664(40.54%)	155(9.46%)	
<b>Satisfaction with life</b>						<0.001
Not at all satisfied	155	39(25.16%)	54(34.84%)	53(34.19%)	9(5.81%)	
Not very satisfied	985	162(16.45%)	447(45.38%)	308(31.27%)	68(6.90%)	
Fairly satisfied	766	56(7.31%)	296(38.64%)	338(44.13%)	76(9.92%)	
Very satisfied	316	30(9.49%)	96(30.38%)	134(42.41%)	56(17.72%)	
<b>Health condition</b>						<0.001
Very poor	38	10(26.32%)	15(39.47%)	9(23.68%)	4(10.53%)	
Poor	262	54(20.61%)	117(44.66%)	71(27.10%)	20(7.63%)	
Average	1132	152(13.43%)	493(43.55%)	401(35.42%)	86(7.60%)	
Good	704	62(8.81%)	246(34.94%)	317(45.03%)	79(11.22%)	
Very good	86	9(10.47%)	22(25.58%)	35(40.70%)	20(23.26%)	
<b>Coverage of health expenses</b>						<0.001
Private insurance	185	16(8.65%)	52(28.11%)	89(48.11%)	28(15.14%)	
Public insurance	478	44(9.21%)	195(40.79%)	181(37.87%)	58(12.13%)	
No insurance	1559	227(14.56%)	646(41.44%)	563(36.11%)	123(7.89%)	

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Bi-variate associations show that women with greater income tend to be more satisfied with their healthcare access, although a large portion of women in the income categories are still not satisfied with their healthcare access (38.46% in highest income category to 65.33% in the lowest income category). In addition, a majority of the women are not satisfied with their healthcare access regardless of the rural or urban location of their home, although those women living in the capital have the highest rate of dissatisfaction (62.88%) followed by those living in the rural areas (54.81%) and those living in the peri-urban areas (49.25%-53.19%). Indigenous women are less satisfied with their healthcare access (60.08%) when compared to Spanish women (48.97%), although Spanish women tend to be more satisfied with their healthcare access when comparing absolute numbers.

Women who are illiterate tend to be less satisfied with their healthcare access (65.32%) when compared to women with some formal educational instruction, although in general one every two women with some degree of formal education is not satisfied with their healthcare access. Whether women are employed or not, one in every two women are not satisfied with their healthcare access, although women working in the public sector tend to be more satisfied with their healthcare access when compared to the other employment categories. In addition, women who are more satisfied with life are generally more satisfied with their healthcare access, although those in poorer health condition tend to be significantly less satisfied with their healthcare access (65.27%-65.79%) when compared to those who are in good to very good condition (36.05%-43.75%). Finally women with private insurance are more satisfied with their healthcare access (63.25%) when compared to those with public insurance (50%) or those with no insurance (44%), although the absolute numbers of those with no insurance are significantly greater representing 70% of the sample.

c) Multiple linear regression model

Although the variables are categorical or dichotomous, a multiple linear regression provides more interpretable results magnitudes and effects which can later be compared with the ordered logistic model. In the table below we can find the results of the multiple linear regression model performed.

**Exhibit 5: Multiple linear regression for satisfaction with access to healthcare for women in Bolivia. \***

VARIABLES N=2222 women	Healthcare access satisfaction			
	$\beta$	SE	Confidence interval	P
<b>Household income</b>				
Not sufficient, major problems	-0.29	0.08	(-0.44, -0.13)	0.00
Not sufficient, have problems	-0.15	0.07	(-0.28, -0.01)	0.03
Just sufficient, no major problems	-0.05	0.07	(-0.19, 0.08)	0.42
Sufficient that you can save			Reference group	
<b>City/Town size</b>				
0-20000 (rural)	0.26	0.07	(0.13, 0.39)	0.00
20001-100000 (peri-urban)	0.27	0.07	(0.12, 0.41)	0.00
100,000 + (large-urban)	0.23	0.06	(0.12, 0.35)	0.00
Capital (provincial capital)			Reference group	
<b>Year</b>				
2004			Reference group	
2005	0.09	0.05	(-0.01, 0.18)	0.09

2006	0.11	0.05	(0.01, 0.21)	0.04
2007	-0.13	0.05	(-0.24, -0.03)	0.01
<b>Age</b>				
18-25			Reference group	
26-40	-0.03	0.05	(-0.13, 0.07)	0.54
41-60	-0.06	0.06	(-0.17, 0.06)	0.31
61+	-0.10	0.08	(-0.25, 0.06)	0.22
<b>Ethnicity (mother tongue)</b>				
Spanish			Reference group	
Indigenous	-0.07	0.04	(-0.15, 0.01)	0.09
Other	-0.03	0.10	(-0.23, 0.16)	0.76
<b>Marital status</b>				
Married or living w/partner	0.03	0.05	(-0.07, 0.13)	0.50
Never married			Reference group	
Separated/divorced/widower	0.06	0.07	(-0.08, 0.20)	0.40
<b>Education level</b>				
Illiterate			Reference group	
Incomplete primary	0.09	0.06	(-0.02, 0.20)	0.10
Complete primary	0.18	0.07	(0.03, 0.32)	0.02
Complete secondary, technical	0.03	0.07	(-0.11, 0.17)	0.70
Complete university	-0.07	0.09	(-0.25, 0.11)	0.43
<b>Employment</b>				
Self-employed	-0.24	0.08	(-0.39, -0.08)	0.00
Salaried employee in public company			Reference group	
Salaried employee in private company	-0.22	0.09	(-0.40, -0.04)	0.02
Unemployed	-0.22	0.12	(-0.46, 0.02)	0.07
Retired	-0.07	0.14	(-0.35, 0.20)	0.61
Don't work – responsible for housework	-0.21	0.08	(-0.37, -0.04)	0.01
Student	-0.14	0.10	(-0.33, 0.06)	0.16
<b>Chief income earner</b>				
Yes	0.00	0.05	(-0.10, 0.09)	0.94
<b>Socioeconomic level</b>				
Very bad	0.04	0.09	(-0.14, 0.22)	0.66
Bad	-0.06	0.05	(-0.15, 0.03)	0.18
Average			Reference group	
Good	0.10	0.05	(0.01, 0.20)	0.03
Very good	0.08	0.10	(-0.12, 0.28)	0.44
<b>Home characteristics</b>				
Home ownership	-0.03	0.04	(-0.10, 0.04)	0.43
Access to drinking water	0.06	0.05	(-0.05, 0.16)	0.29
Sewage	-0.05	0.04	(-0.13, 0.02)	0.18
TV ownership	0.08	0.05	(0.00, 0.17)	0.06
<b>Satisfaction with life</b>				
Not at all satisfied	-0.26	0.08	(-0.42, -0.10)	0.00
Not very satisfied	-0.26	0.05	(-0.37, -0.16)	0.00
Fairly satisfied	-0.07	0.05	(-0.18, 0.03)	0.18
Very satisfied			Reference group	
<b>Health condition</b>				
Very poor	-0.30	0.16	(-0.61, 0.01)	0.06
Poor	-0.33	0.10	(-0.53, -0.13)	0.00
Average	-0.25	0.09	(-0.43, -0.08)	0.01
Good	-0.14	0.09	(-0.32, 0.04)	0.12
Very good			Reference group	
<b>Coverage of health expenses</b>				
Private insurance	0.20	0.07	(0.08, 0.33)	0.00
Public insurance	0.05	0.05	(-0.04, 0.14)	0.31
No insurance			Reference group	

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*R<sup>2</sup> = 0.12 / Adj. R<sup>2</sup> = .1023

Bolivian women with lower incomes are 0.14 to 0.29 points less satisfied with their healthcare access after adjusting for other factors in the model (SE 0.07-0.08, p<0.001), while those women living in



the rural and peri-urban areas are 0.23 to 0.26 points more satisfied with their healthcare access (SE 0.06-0.07,  $p < 0.001$ ). Indigenous women are 0.07 points less satisfied with their healthcare access (SE 0.04,  $p < 0.10$ ). As women get older they are 0.03 to 0.10 points less satisfied with their healthcare access, although significance levels are not important, while women who have completed primary are 0.18 points more satisfied with their healthcare access (SE 0.07,  $p = 0.016$ ). In addition, women who are employed are 0.22 to 0.24 points less satisfied with their healthcare access after adjusting for other factors in the model (SE 0.08-0.09,  $p < 0.05$ ). However women who are responsible for the housework but are not employed are 0.20 points less satisfied with their healthcare access (SE 0.08,  $p = 0.012$ ).

Women who are not satisfied with their life are 0.26 points less satisfied with their healthcare access after adjusting for other factors in the model (SE 0.08,  $p < 0.001$ ). As women's health status worsens they are 0.25 to 0.33 points less satisfied with their healthcare access (SE=0.09-0.15,  $p < 0.05$ ). Women with private health insurance are 0.20 points more satisfied with their healthcare access when compared to those with no insurance (SE 0.20,  $p < 0.01$ ) after adjusting for other factors in the model.

#### d) Generalized ordered logistic regression model

While the bi-variate analyses and the linear regression model provided some initial understanding on the relationships and effects of the variables, a logistic regression can generate predictions that are in the feasible range, given the fact that the predictors and outcome of interest are categorical. Below are the results of the generalized ordered logistic regression model (GoLogit2).

**Exhibit 6: Generalized ordered logistic regression for satisfaction with access to healthcare for women in Bolivia.\***

Characteristics N=2222 women	Healthcare access satisfaction								
	Not at all (1 vs. 2&3&4)			Not satisfied (1&2 vs. 3&4)			Rather satisfied (1&2&3 vs. 4)		
	OR	CI	p	OR	CI	p	OR	CI	P
<b>Household income</b>									
Not sufficient, major problems	0.29	0.19, 0.45	0.00	0.51	0.35, 0.77	0.00	0.94	0.56, 1.57	0.81
Not sufficient, have problems	0.65	0.47, 0.90	0.01						
Just sufficient, no major problems	0.84	0.61, 1.16	0.28						
Sufficient that you can save				Reference group					
<b>City/Town size</b>									
0-20000 (rural)	1.93	1.41, 2.64	0.00						
20001-100000 (peri-urban)	3.36	2.00, 5.66	0.00	1.89	1.31, 2.74	0.00	1.16	0.67, 2.02	0.60
100,000 + (large-urban)	1.94	1.36, 2.76	0.00	1.96	1.46, 2.64	0.00	1.25	0.84, 1.85	0.27
Capital (provincial capital)				Reference group					

<b>Year</b>									
2004				Reference group					
2005	1.22	0.96,1.54	0.10						
2006	1.32	1.03,1.69	0.03						
2007	0.72	0.56,0.92	0.01						
<b>Age</b>									
18-25				Reference group					
26-40	0.92	0.73,1.17	0.50						
41-60	0.88	0.67,1.16	0.36						
61+	0.83	0.57,1.19	0.31						
<b>Ethnicity (mother tongue)</b>									
Spanish				Reference group					
Indigenous	0.85	0.70,1.03	0.09						
Other	0.86	0.53,1.39	0.53						
<b>Marital status</b>									
Married or living w/partner	1.10	0.87,1.41	0.42						
Never married				Reference group					
Separated/divorced/widower	1.18	0.84,1.65	0.34						
<b>Education level</b>									
Illiterate				Reference group					
Incomplete primary	1.26	0.96,1.64	0.09						
Complete primary	1.50	1.06,2.11	0.02						
Complete secondary, technical	1.07	0.77,1.49	0.69						
Complete university	0.84	0.55,1.28	0.42						
<b>Employment</b>									
Self-employed	0.57	0.39,0.83	0.00						
Salaried employee in public company				Reference group					
Salaried employee in private company	1.01	0.53,1.94	0.97	0.60	0.38,0.94	0.03	0.33	0.15,0.71	0.00
Unemployed	0.59	0.33,1.05	0.08						
Retired	0.57	0.23,1.43	0.23	0.69	0.34,1.41	0.32	2.14	0.93,4.92	0.07
Don't work – responsible for housework	0.61	0.41,0.90	0.01						
Student	0.73	0.46,1.16	0.18						
<b>Chief income earner</b>									
Yes	0.97	0.77,1.22	0.81						
<b>Socioeconomic level</b>									
Very bad	1.12	0.74,1.70	0.58						
Bad	0.87	0.70,1.08	0.22						
Average				Reference group					
Good	0.86	0.60,1.25	0.43	1.32	1.04,1.69	0.03	1.86	1.31,2.65	0.00
Very good	1.24	0.77,2.00	0.38						
<b>Home characteristics</b>									
Home ownership	0.95	0.80,1.13	0.56						
Drinking water	1.16	0.91,1.47	0.24						
Sewage	0.89	0.73,1.07	0.22						
TV ownership	1.62	1.20,2.19	0.00	1.20	0.95,1.51	0.13	0.77	0.53,1.12	0.17
<b>Satisfaction with life</b>									
Not at all satisfied	0.61	0.42,0.90	0.01						
Not very satisfied	0.79	0.55,1.14	0.20	0.50	0.38,0.66	0.00	0.48	0.33,0.70	0.00
Fairly satisfied	1.59	1.04,2.44	0.03	0.81	0.62,1.07	0.15	0.62	0.42,0.91	0.01
Very satisfied				Reference group					
<b>Health condition</b>									
Very poor	0.50	0.24,1.06	0.07						
Poor	0.46	0.28,0.75	0.00						
Average	0.57	0.37,0.89	0.01						
Good	0.74	0.47,1.15	0.18						
Very good				Reference group					
<b>Coverage of health expenses</b>									
Private insurance	1.74	1.28,2.36	0.00						
Public insurance	1.09	0.88,1.35	0.41						
No insurance				Reference group					

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*Wald  $\chi^2 = 362.36$  / Prob> $\chi^2 = 0.0000$  / Pseudo  $R^2 = 0.0714$

\*\* Post-estimation tests and Wald test confirm joint significance for all categories and correct for others accordingly.

Women with less income are 0.35 to 0.70 times less likely to be satisfied with their healthcare access after adjusting for other factors in the model (OR=.30-.65,  $p<0.01$ ). In addition women living in the peri-urban and rural areas are 0.93 to 1.36 times more likely to be satisfied with their healthcare access (OR=1.93-2.36,  $p<0.001$ ), while indigenous women are 0.15 times less likely to be satisfied with their healthcare access (OR=0.85,  $p<0.10$ ). Bolivian women who are older tend to be 0.08-0.18 times less likely to be satisfied with their healthcare access and those who are married or divorced/widowed are 0.10 to 0.18 times more likely to be satisfied with their healthcare access, although the results are not significant.

Bolivian women who have completed their primary education are 0.50 times more likely to be satisfied with their healthcare access after adjusting for other factors in the model (OR=1.50,  $p=0.02$ ). However those women who are self-employed or who do household chores are 0.40 times less likely to be satisfied with their healthcare access after adjusting for other factors in the model (OR=0.57-0.61,  $p<0.01$ ). Interestingly women who own a TV tend to be 0.62 times more likely to be satisfied with their healthcare access after adjusting for other factors in the model (OR=1.62,  $p<0.01$ ).

Women who are less satisfied with life are 0.38 times less likely to be satisfied with their healthcare access (OR=0.61,  $p<0.01$ ) while those who are fairly satisfied with life tend to be 0.59 times more likely to be satisfied with their healthcare access (OR=1.59,  $p=0.03$ ). However women whose health status is poor or average tend to be 0.43 to 0.55 times less likely to be satisfied with their healthcare access after adjusting for other factors in the model (OR=0.45-0.57,  $p<0.01$ ). Finally women who have private insurance are 0.74 times more satisfied with their healthcare access after adjusting for other factors in the model (OR=1.74,  $p<0.001$ ).

It should also be noted that results comparable when comparing categories 1&2 vs. 3&4 and 1&2&3 vs. 4 when performing the GoLogit2 with autofit option although some minimal inconsistencies in women who are retired or own a TV exist, although they are not significant.

e) Stratifications by regressors of interest

As results from the generalized ordered logistic and linear models are comparable, stratified analyses were performed to confirm the results and isolate any additional effects that might prove consistent while also being efficient. These analyses treat satisfaction to healthcare access as continuous allowing for ease of interpretation. However it should be noted that due to the smaller sample sizes of the strata significance levels might not always help in corroborating the results.

1) Stratified by income

**Exhibit 7: Stratified multiple linear regression by income for satisfaction with access to healthcare for women in Bolivia.**

VARIABLES N=2222 women	INCOME STRATA											
	Not sufficient - major problems			Not sufficient – have problems			Just sufficient – no major problems			Sufficient that can save		
City/Town size	β	SE	p	β	SE	p	β	SE	P	B	SE	P
0-20000 (rural)	0.47	0.27	0.08	0.31	0.10	0.00	0.19	0.10	0.07	-0.17	0.27	0.53
20001-100000 (peri-urban)	0.60	0.28	0.03	0.28	0.11	0.01	0.23	0.12	0.06	-0.18	0.30	0.55
100,000 + (large-urban)	0.43	0.26	0.10	0.22	0.09	0.02	0.26	0.09	0.00	-0.34	0.24	0.16
Capital (provincial capital)	Reference group											
<b>Year</b>	Reference group											
2004	Reference group											
2005	0.05	0.15	0.74	0.12	0.07	0.10	0.12	0.09	0.17	0.16	0.22	0.47
2006	-0.06	0.17	0.73	0.19	0.08	0.02	0.15	0.09	0.10	0.10	0.21	0.63
2007	-0.37	0.16	0.02	-0.17	0.08	0.04	-0.03	0.09	0.72	-0.06	0.22	0.80
<b>Age</b>	Reference group											
18-25	Reference group											
26-40	-0.13	0.17	0.44	-0.01	0.07	0.92	-0.05	0.08	0.57	-0.07	0.20	0.71
41-60	0.03	0.19	0.86	-0.03	0.09	0.76	-0.26	0.10	0.01	0.19	0.28	0.49
61+	0.10	0.22	0.67	-0.16	0.12	0.17	-0.37	0.14	0.01	-0.08	0.38	0.84
<b>Ethnicity (mother tongue)</b>	Reference group											
Spanish	Reference group											
Indigenous	-0.10	0.13	0.46	0.02	0.06	0.76	-0.09	0.07	0.22	-0.29	0.18	0.12
Other	0.00	0.23	0.99	0.22	0.16	0.17	-0.43	0.21	0.04	-0.28	0.39	0.48
<b>Marital status</b>	Reference group											
Married or living w/partner	0.23	0.16	0.15	-0.03	0.08	0.72	0.14	0.08	0.09	-0.27	0.18	0.13
Never married	Reference group											
Separated/divorced/widower	-0.04	0.21	0.86	0.03	0.11	0.80	0.24	0.13	0.06	0.36	0.33	0.29
<b>Education level</b>	Reference group											
Illiterate	Reference group											
Incomplete primary	0.20	0.15	0.19	0.06	0.08	0.46	0.07	0.11	0.50	-0.12	0.51	0.82
Complete primary	0.40	0.23	0.09	0.16	0.10	0.12	0.09	0.14	0.53	-0.16	0.54	0.77
Complete secondary, technical	0.37	0.24	0.12	-0.02	0.10	0.81	-0.07	0.13	0.58	-0.10	0.54	0.85
Complete university	-0.05	0.37	0.90	-0.03	0.14	0.82	-0.15	0.15	0.31	-0.39	0.59	0.51
<b>Employment</b>	Reference group											
Self-employed	-0.65	0.30	0.03	-0.21	0.12	0.09	-0.30	0.12	0.02	0.51	0.34	0.14
Salaried employee in public company	Reference group											
Salaried employee in private company	-0.71	0.33	0.03	-0.15	0.14	0.29	-0.30	0.14	0.04	0.72	0.39	0.07
Unemployed	-0.64	0.39	0.10	-0.18	0.19	0.34	-0.29	0.21	0.17	0.32	0.44	0.47
Retired	-0.76	0.57	0.19	-0.41	0.22	0.07	0.36	0.20	0.08	0.80	0.64	0.21
Don't work – responsible for housework	-0.43	0.31	0.17	-0.16	0.13	0.21	-0.31	0.13	0.02	0.69	0.37	0.07

Student	-0.33	0.39	0.41	-0.17	0.16	0.27	-0.15	0.15	0.30	0.47	0.38	0.22
<b>Chief income earner</b>												
Yes	0.20	0.15	0.18	0.01	0.07	0.90	-0.07	0.08	0.37	0.16	0.22	0.48
<b>Socioeconomic level</b>												
Very bad	0.05	0.21	0.81	0.04	0.13	0.79	0.06	0.19	0.76	-0.56	0.50	0.26
Bad	-0.01	0.13	0.94	-0.15	0.06	0.02	0.08	0.09	0.35	0.06	0.29	0.83
Average							Reference group					
Good	-0.02	0.20	0.92	0.09	0.08	0.26	0.18	0.07	0.01	0.03	0.15	0.82
Very good	-0.14	0.38	0.71	0.00	0.18	0.99	0.14	0.16	0.39	0.15	0.26	0.56
<b>Home characteristics</b>												
Home ownership	-0.12	0.11	0.30	-0.04	0.05	0.43	-0.02	0.06	0.70	0.06	0.16	0.68
Drinking water	-0.01	0.15	0.95	0.03	0.08	0.66	0.08	0.09	0.40	-0.16	0.22	0.45
Sewage	0.15	0.13	0.25	-0.04	0.06	0.46	-0.11	0.07	0.11	-0.19	0.17	0.26
TV ownership	0.02	0.12	0.89	0.10	0.06	0.12	0.09	0.09	0.32	0.24	0.23	0.30
<b>Satisfaction with life</b>												
Not at all satisfied	-0.34	0.24	0.16	-0.31	0.12	0.01	-0.31	0.17	0.07	-0.43	0.38	0.26
Not very satisfied	-0.40	0.21	0.06	-0.31	0.08	0.00	-0.18	0.08	0.04	-0.27	0.20	0.17
Fairly satisfied	-0.28	0.23	0.22	-0.09	0.09	0.28	0.03	0.08	0.75	-0.12	0.18	0.51
Very satisfied							Reference group					
<b>Health condition</b>												
Very poor	-0.43	0.41	0.29	-0.32	0.27	0.23	-0.36	0.35	0.31	Dropped*		
Poor	-0.52	0.37	0.16	-0.42	0.18	0.02	-0.25	0.17	0.14	-0.57	0.32	0.07
Average	-0.40	0.35	0.25	-0.36	0.16	0.03	-0.06	0.14	0.66	-0.44	0.24	0.07
Good	-0.28	0.36	0.44	-0.27	0.17	0.11	0.05	0.14	0.72	-0.32	0.23	0.17
Very good							Reference group					
<b>Coverage of health expenses</b>												
Private insurance	-0.25	0.25	0.33	0.20	0.12	0.09	0.23	0.10	0.02	0.42	0.20	0.03
Public insurance	0.01	0.16	0.93	0.09	0.07	0.20	0.00	0.07	0.98	0.28	0.20	0.16
No insurance							Reference group					

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*Dropped as too few observations

Bolivian women whose income is not sufficient and live in the rural areas are 0.47 points more satisfied with their healthcare access (SE 0.27,  $p < 0.10$ ), while women living in the peri-urban areas are 0.60 points more satisfied (SE 0.28,  $p < 0.05$ ) and those living in large urban areas are 0.43 points more satisfied (SE 0.26,  $p < 0.10$ ) when compared to those women living in the capital. However as women's income increases their satisfaction with healthcare access is somewhat reduced for rural to 0.31 (SE 0.10,  $p < 0.01$ ), peri-urban 0.28 (SE 0.11,  $p < 0.01$ ) and large urban 0.22 (SE 0.09,  $p < 0.05$ ). Women whose income is sufficient and live in the rural areas are only 0.19 points more satisfied with their healthcare access (SE 0.10,  $p < 0.10$ ), while women living in the peri-urban areas are 0.23 points more satisfied (SE 0.12,  $p < 0.10$ ) and those living in the large urban areas are 0.26 points more satisfied (SE 0.26,  $p < 0.09$ ), when compared to those living in the capital. In other words, the greater the income Bolivian women have the less difference the location of their home makes in the healthcare access satisfaction.

Indigenous Bolivian women whose income is not sufficient are 0.10 points less satisfied with their healthcare access (SE 0.13,  $p = 0.46$ ), while those women that have sufficient income are 0.09 to

0.29 points less satisfied with their healthcare access (SE 0.07/0.18, p=0.22/p=0.12) when compared with Spanish/white women. Clearly, the greater the income Bolivian indigenous women have the less they seem to be satisfied with their healthcare access.

Generally speaking, the greater the income Bolivian women have the greater difference their education level makes in their decreased satisfaction with healthcare access, while the greater difference employment and housework make in their greater satisfaction with their healthcare access. In addition, the greater the income women have the less difference owning a home and having drinking water at home make in their overall healthcare access satisfaction, although having sewage increases the possibility of them being less satisfied with their healthcare access, while owning a TV increases their healthcare access satisfaction. Furthermore, the greater the income that women have the less difference their satisfaction with life makes in their healthcare access satisfaction although the larger impact their health condition has in their decreased healthcare access satisfaction. . Finally the greater income women the greater the difference health insurance makes in their increased healthcare access satisfaction.

## 2) Stratified by location of home

**Exhibit 8: Stratified multiple linear regression by city/town size for satisfaction with access to healthcare for women in Bolivia.**

VARIABLES N=2222 women	CITY/TOWN SIZE STRATA											
	Rural – less than 20,000			Peri-urban 20,000-100,000			Large urban >100,000			Capital		
Household income	β	SE	p	β	SE	p	β	SE	P	B	SE	P
Not sufficient, major problems	-0.36	0.15	0.02	-0.12	0.23	0.60	-0.20	0.12	0.09	-0.93	0.31	0.00
Not sufficient, have problems	-0.13	0.14	0.34	-0.02	0.20	0.92	-0.08	0.10	0.43	-0.52	0.25	0.04
Just sufficient, no major problems	-0.14	0.14	0.32	0.04	0.20	0.85	0.08	0.09	0.36	-0.45	0.24	0.06
Sufficient that you can save	Reference group											
<b>Year</b>	Reference group											
2004	Reference group											
2005	0.20	0.08	0.01	-0.20	0.16	0.23	-0.04	0.09	0.60	0.08	0.17	0.64
2006	0.28	0.10	0.01	-0.01	0.16	0.93	0.03	0.08	0.71	-0.11	0.18	0.55
2007	-0.24	0.10	0.02	-0.12	0.15	0.46	-0.13	0.08	0.11	-0.36	0.18	0.04
<b>Age</b>	Reference group											
18-25	Reference group											
26-40	-0.06	0.09	0.48	-0.17	0.14	0.21	0.07	0.07	0.34	-0.06	0.16	0.72
41-60	-0.11	0.10	0.27	0.08	0.16	0.63	0.08	0.09	0.37	-0.37	0.20	0.06
61+	-0.24	0.13	0.07	-0.03	0.20	0.87	0.11	0.12	0.39	-0.14	0.32	0.67
<b>Ethnicity (mother tongue)</b>	Reference group											
Spanish	Reference group											

Indigenous	-0.05	0.07	0.45	0.06	0.12	0.61	-0.05	0.07	0.48	-0.25	0.15	0.10
Other	0.01	0.15	0.93	-0.60	0.30	0.05	0.16	0.17	0.34	-0.60	0.40	0.13
<b>Marital status</b>												
Married or living w/partner	0.02	0.10	0.87	0.10	0.14	0.47	0.04	0.08	0.62	0.06	0.16	0.72
Never married							Reference group					
Separated/divorced/widower	0.10	0.13	0.46	0.05	0.18	0.80	0.04	0.11	0.73	0.20	0.24	0.40
<b>Education level</b>												
Illiterate							Reference group					
Incomplete primary	0.02	0.09	0.79	0.17	0.14	0.24	0.26	0.11	0.02	-0.27	0.31	0.39
Complete primary	0.06	0.12	0.62	0.26	0.20	0.19	0.39	0.12	0.00	-0.19	0.36	0.60
Complete secondary, technical	-0.04	0.12	0.75	0.14	0.19	0.45	0.23	0.12	0.05	-0.46	0.34	0.18
Complete university	-0.63	0.19	0.00	0.29	0.25	0.25	0.26	0.15	0.08	-0.70	0.37	0.06
<b>Employment</b>												
Self-employed	-0.35	0.15	0.02	-0.20	0.21	0.34	-0.35	0.13	0.01	0.27	0.25	0.29
Salaried employee in public company							Reference group					
Salaried employee in private company	-0.36	0.19	0.06	0.03	0.27	0.92	-0.20	0.14	0.15	0.02	0.27	0.93
Unemployed	-0.29	0.24	0.23	0.19	0.31	0.53	-0.45	0.18	0.02	0.37	0.40	0.36
Retired	-0.39	0.31	0.22	-0.48	0.43	0.26	-0.12	0.21	0.56	0.49	0.34	0.16
Don't work – responsible for housework	-0.32	0.15	0.04	0.04	0.23	0.87	-0.30	0.13	0.02	0.21	0.27	0.44
Student	-0.32	0.20	0.11	0.21	0.27	0.43	-0.15	0.15	0.32	0.06	0.28	0.83
<b>Chief income earner</b>												
Yes	0.07	0.08	0.40	0.17	0.14	0.22	-0.07	0.08	0.33	-0.30	0.16	0.06
<b>Socioeconomic level</b>												
Very bad	0.05	0.12	0.71	-0.44	0.26	0.10	0.06	0.19	0.74	0.79	0.66	0.23
Bad	-0.02	0.07	0.83	-0.28	0.13	0.03	-0.07	0.07	0.31	-0.02	0.20	0.92
Average							Reference group					
Good	0.17	0.11	0.10	-0.10	0.14	0.49	0.05	0.07	0.47	0.16	0.13	0.23
Very good	0.11	0.23	0.62	-0.07	0.47	0.87	-0.04	0.14	0.75	0.20	0.25	0.42
<b>Home characteristics</b>												
Home ownership	-0.08	0.07	0.21	0.14	0.10	0.16	0.00	0.06	0.99	-0.04	0.12	0.71
Drinking water	0.03	0.08	0.65	0.02	0.16	0.88	0.13	0.09	0.17	0.05	0.23	0.84
Sewage	-0.16	0.07	0.02	0.01	0.11	0.93	-0.05	0.06	0.44	0.16	0.25	0.53
TV ownership	0.18	0.07	0.01	-0.10	0.12	0.42	0.05	0.08	0.52	0.33	0.21	0.12
<b>Satisfaction with life</b>												
Not at all satisfied	-0.11	0.14	0.42	-0.47	0.24	0.05	-0.26	0.13	0.05	-0.74	0.31	0.02
Not very satisfied	-0.30	0.11	0.01	-0.43	0.15	0.00	-0.18	0.08	0.02	-0.19	0.18	0.29
Fairly satisfied	-0.02	0.11	0.86	-0.25	0.15	0.09	-0.05	0.08	0.55	0.07	0.18	0.69
Very satisfied							Reference group					
<b>Health condition</b>												
Very poor	-0.18	0.26	0.48	0.60	0.46	0.20	-0.99	0.27	0.00	-0.21	0.66	0.75
Poor	-0.30	0.19	0.12	0.20	0.28	0.48	-0.44	0.16	0.01	-0.52	0.29	0.08
Average	-0.17	0.18	0.33	0.04	0.23	0.87	-0.39	0.14	0.01	-0.42	0.26	0.11
Good	-0.11	0.18	0.54	0.19	0.24	0.43	-0.30	0.14	0.04	-0.19	0.26	0.47
Very good							Reference group					
<b>Coverage of health expenses</b>												
Private insurance	0.01	0.13	0.95	0.13	0.25	0.61	0.19	0.09	0.05	0.39	0.17	0.02
Public insurance	0.04	0.09	0.66	0.01	0.13	0.94	0.01	0.07	0.83	0.13	0.15	0.39
No insurance							Reference group					

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Bolivian women living in the rural areas, whose income is insufficient, are 0.13-0.36 points less satisfied with their healthcare access (SE 0.15/0.13,  $p=0.017/p=0.34$ ), while these women live in larger cities or towns they are even less satisfied with their healthcare access by 0.51-0.92 points (SE 0.25/0.31,  $p=0.04/p<0.01$ ) when compared to those women whose income allows them to save. In addition, women with sufficient income who live in the capital are 0.44 points less satisfied with their

healthcare access (SE 0.24, p=0.06), when compared to those women whose income is sufficient to be able to save. In other words, the larger the size of the town/city in which Bolivian women live the less satisfied they tend to be with their healthcare access.

Indigenous Bolivian women are generally less satisfied with their healthcare access no matter where they live, with those living in the capital being 0.25 points less satisfied (SE 0.15, p<0.10) when compared to Spanish/white women. Clearly, those from an indigenous background, regardless of where they live, tend to be less satisfied overall with their healthcare access when compared to Spanish/white women.

Generally speaking the larger the size of the town/city in which Bolivian women live less difference age, employment, owning a home, having access to drinking water, having sewage or having a TV make in their healthcare access satisfaction. However the larger the size of the town/city in which women live the greater the difference education and having private health insurance make in their increased healthcare access satisfaction, while the greater the difference satisfaction with life and health condition make in their decreased healthcare access satisfaction.

### 3) Stratified by ethnicity

**Exhibit 9: Stratified multiple linear regression by ethnicity for satisfaction with access to healthcare for women in Bolivia**

VARIABLES N=2222 women	ETHNICITY								
	Spanish/White			Indigenous			Other		
	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
<b>Household income</b>									
Not sufficient, major problems	-0.28	0.10	0.01	-0.27	0.17	0.11	-0.98	1.49	0.52
Not sufficient, have problems	-0.20	0.08	0.01	-0.04	0.16	0.81	-0.84	1.39	0.55
Just sufficient, no major problems	-0.06	0.08	0.44	-0.03	0.16	0.87	-1.14	1.26	0.37
Sufficient that you can save				Reference group					
<b>City/Town size</b>									
0-20000 (rural)	0.22	0.08	0.01	0.35	0.13	0.01	-0.18	1.19	0.88
20001-100000 (peri-urban)	0.19	0.09	0.03	0.47	0.15	0.00	-0.71	1.31	0.59
100,000 + (large-urban)	0.18	0.07	0.01	0.34	0.12	0.01	-0.05	1.18	0.97
Capital (provincial capital)				Reference group					
<b>Year</b>									
2004				Reference group					
2005	0.00	0.06	0.98	0.30	0.09	0.00	-0.83	0.69	0.24
2006	0.09	0.07	0.18	0.17	0.09	0.06	-0.76	0.97	0.44
2007	-0.11	0.07	0.10	-0.22	0.09	0.01	-0.36	0.61	0.56
<b>Age</b>									
18-25				Reference group					



26-40	0.00	0.06	0.96	-0.12	0.09	0.20	0.50	0.73	0.50
41-60	-0.04	0.07	0.58	-0.10	0.10	0.33	0.48	0.74	0.53
61+	-0.10	0.10	0.30	-0.17	0.13	0.19	0.58	1.09	0.60
<b>Marital status</b>									
Married or living w/partner	0.06	0.06	0.30	0.04	0.10	0.71	0.26	0.69	0.71
Never married				Reference group					
Separated/divorced/widower	0.15	0.09	0.11	0.03	0.12	0.82	0.18	0.96	0.85
<b>Education level</b>									
Illiterate				Reference group					
Incomplete primary	0.12	0.09	0.19	0.05	0.08	0.58	0.29	0.67	0.66
Complete primary	0.21	0.10	0.04	0.06	0.13	0.64	0.45	0.76	0.56
Complete secondary, technical	0.04	0.10	0.70	-0.05	0.12	0.67	-0.01	0.88	1.00
Complete university	-0.05	0.12	0.65	-0.28	0.22	0.20	0.64	1.16	0.59
<b>Employment</b>									
Self-employed	-0.22	0.09	0.02	-0.44	0.18	0.01	3.35	2.10	0.12
Salaried employee in public company				Reference group					
Salaried employee in private company	-0.19	0.10	0.06	-0.24	0.22	0.29	3.36	2.51	0.19
Unemployed	-0.15	0.14	0.29	-0.48	0.25	0.06	1.90	2.54	0.46
Retired	-0.08	0.16	0.64	0.05	0.31	0.88	2.32	2.30	0.32
Don't work – responsible for housework	-0.15	0.09	0.11	-0.42	0.19	0.03	2.99	2.20	0.18
Student	-0.08	0.11	0.49	-0.40	0.22	0.07	3.87	2.19	0.09
<b>Chief income earner</b>									
Yes	-0.01	0.06	0.84	-0.01	0.08	0.87	0.15	0.49	0.76
<b>Socioeconomic level</b>									
Very bad	-0.02	0.14	0.89	0.03	0.13	0.82	-0.28	0.75	0.72
Bad	-0.03	0.06	0.67	-0.10	0.07	0.18	-0.12	0.44	0.78
Average				Reference group					
Good	0.07	0.05	0.19	0.19	0.10	0.06	1.13	1.26	0.38
Very good	0.05	0.11	0.65	0.11	0.25	0.67	-0.72	1.41	0.61
<b>Home characteristics</b>									
Home ownership	-0.01	0.05	0.83	-0.03	0.07	0.60	0.20	0.44	0.66
Drinking water	0.03	0.07	0.62	0.09	0.08	0.26	-0.24	0.61	0.70
Sewage	-0.02	0.05	0.73	-0.12	0.07	0.09	0.25	0.54	0.64
TV ownership	0.12	0.06	0.06	0.07	0.07	0.28	0.22	0.48	0.64
<b>Satisfaction with life</b>									
Not at all satisfied	-0.23	0.10	0.02	-0.38	0.16	0.02	0.41	0.88	0.65
Not very satisfied	-0.22	0.06	0.00	-0.32	0.11	0.00	0.26	0.83	0.76
Fairly satisfied	-0.05	0.06	0.44	-0.13	0.11	0.26	0.86	0.92	0.36
Very satisfied				Reference group					
<b>Health condition</b>									
Very poor	-0.53	0.22	0.02	-0.03	0.31	0.93	1.64	1.33	0.23
Poor	-0.39	0.12	0.00	-0.30	0.24	0.21	1.27	1.34	0.35
Average	-0.34	0.10	0.00	-0.19	0.22	0.39	2.16	1.29	0.10
Good	-0.22	0.10	0.03	-0.09	0.23	0.68	2.40	1.19	0.05
Very good				Reference group					
<b>Coverage of health expenses</b>									
Private insurance	0.25	0.07	0.00	0.05	0.15	0.75	-0.86	0.76	0.27
Public insurance	0.04	0.05	0.46	0.10	0.09	0.30	-0.22	0.50	0.67
No insurance				Reference group					

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Spanish/white Bolivian women whose income is not sufficient are 0.20 to 0.28 points less satisfied with their healthcare access (SE 0.08/0.10,  $p=0.01/p<0.01$ ) when compared to women whose income is sufficient. Indigenous Bolivian women whose income is not sufficient are 0.27 points less satisfied with their healthcare access (SE 0.17,  $p=0.10$ ) when compared to those indigenous women who have sufficient income that they can save.

Spanish/white women living in rural areas are 0.22 points more satisfied with their healthcare access (SE 0.08, p<0.01) when compared to those living in the capital, while indigenous women living in rural areas are 0.35 points more satisfied with their healthcare access (SE 0.13, p<0.01) when compared to indigenous women living in the capital. Spanish/white women living in the peri-urban areas are 0.19 points more satisfied with their healthcare access (SE 0.09, p=0.02), while indigenous women living in the peri-urban areas are 0.47 points more satisfied with their healthcare access (SE 0.47, p<0.01), when compared to those living in the capital. Spanish/white women living in the large urban areas are 0.18 points more satisfied with their healthcare access (SE 0.07, p<0.01) while indigenous women living in the large urban areas are 0.34 points more satisfied with their healthcare access (SE 0.12, p<0.01) when compared to those living in the capital.

Generally speaking, for women with different ethnicities, comparing indigenous to Spanish/white, the less difference age, marital status, owning a home, having access to drinking water, having sewage or owning a TV make in their overall healthcare access satisfaction. However for these women with different ethnicities the greater the difference education and unemployment/housework make in their decreased healthcare access satisfaction. When comparing indigenous to Spanish/white the greater the difference their health status and having a health insurance make in their decreased healthcare access satisfaction.

#### 4) Stratified by health condition

**Exhibit 10: Stratified multiple linear regression by self-perceived health condition for satisfaction with access to healthcare for women in Bolivia.**

VARIABLES N=2222 women	HEALTH CONDITION STATUS											
	Health status – poor			Health condition – average			Health condition – good			Health condition – very good		
Household income	β	SE	p	β	SE	p	β	SE	p	B	SE	P
Not sufficient, major problems	-0.35	0.28	0.22	-0.20	0.12	0.11	-0.30	0.14	0.04	-0.57	0.40	0.17
Not sufficient, have problems	-0.30	0.26	0.24	-0.07	0.11	0.53	-0.13	0.11	0.24	-0.28	0.34	0.41
Just sufficient, no major problems	-0.31	0.28	0.26	0.02	0.11	0.83	0.03	0.10	0.80	-0.64	0.29	0.03
Sufficient that you can save	Reference group											
City/Town size												
0-20000 (rural)	0.34	0.20	0.09	0.35	0.09	0.00	0.14	0.12	0.26	-0.06	0.36	0.88
20001-100000 (peri-urban)	0.47	0.25	0.06	0.26	0.10	0.01	0.21	0.13	0.11	-0.32	0.41	0.44
100,000 + (large-urban)	0.39	0.18	0.03	0.26	0.09	0.00	0.17	0.11	0.12	0.05	0.31	0.87

Capital (provincial capital)				Reference group								
Year				Reference group			Reference group					
2004												
2005	0.17	0.17	0.33	0.10	0.07	0.15	0.06	0.09	0.54	0.33	0.37	0.39
2006	0.17	0.18	0.32	0.16	0.07	0.03	0.08	0.09	0.38	-0.20	0.36	0.59
2007	-0.08	0.19	0.66	-0.07	0.07	0.32	-0.20	0.09	0.03	-0.47	0.34	0.18
<b>Age</b>												
18-25												
26-40	-0.12	0.21	0.58	0.00	0.07	0.97	-0.09	0.09	0.29	-0.13	0.27	0.64
41-60	-0.18	0.22	0.41	-0.05	0.08	0.56	-0.10	0.11	0.34	0.00	0.35	0.99
61+	-0.29	0.25	0.25	-0.09	0.11	0.37	0.08	0.16	0.59	-0.21	0.55	0.70
<b>Ethnicity (mother tongue)</b>												
Spanish												
Indigenous	-0.12	0.13	0.35	-0.03	0.05	0.54	-0.05	0.08	0.50	-0.21	0.40	0.61
Other	-0.14	0.31	0.66	0.02	0.14	0.90	0.04	0.20	0.84	-0.69	0.59	0.25
<b>Marital status</b>												
Married or living w/partner	0.22	0.19	0.25	0.04	0.07	0.61	0.01	0.09	0.89	-0.43	0.28	0.13
Never married												
Separated/divorced/widower	0.18	0.23	0.42	0.12	0.10	0.21	0.03	0.13	0.85	-0.49	0.51	0.34
<b>Education level</b>												
Illiterate												
Incomplete primary	0.28	0.16	0.09	0.05	0.07	0.54	0.24	0.12	0.04	-0.88	0.57	0.13
Complete primary	0.16	0.23	0.50	0.15	0.10	0.11	0.31	0.15	0.04	-0.51	0.61	0.41
Complete secondary, technical	-0.07	0.23	0.76	-0.02	0.09	0.84	0.26	0.14	0.07	-1.16	0.61	0.07
Complete university	-0.03	0.29	0.91	-0.11	0.13	0.42	0.20	0.17	0.24	-1.20	0.60	0.05
<b>Employment</b>												
Self-employed	0.08	0.36	0.82	-0.22	0.11	0.05	-0.18	0.14	0.18	-1.08	0.34	0.00
Salaried employee in public company												
Salaried employee in private company	-0.21	0.40	0.61	-0.05	0.14	0.70	-0.23	0.15	0.13	-1.44	0.46	0.00
Unemployed	0.28	0.51	0.58	-0.25	0.17	0.15	-0.23	0.21	0.26	1.06	0.72	0.15
Retired	0.42	0.45	0.35	-0.36	0.21	0.08	0.17	0.28	0.55	1.26	0.64	0.06
Don't work – responsible for housework	-0.16	0.39	0.68	-0.18	0.12	0.13	-0.09	0.14	0.55	-0.50	0.35	0.16
Student	-0.06	0.46	0.90	-0.12	0.14	0.41	-0.05	0.16	0.77	-0.70	0.45	0.12
<b>Chief income earner</b>												
Yes	-0.13	0.17	0.46	-0.06	0.07	0.39	0.09	0.09	0.31	0.41	0.30	0.19
<b>Socioeconomic level</b>												
Very bad	-0.01	0.24	0.97	-0.06	0.12	0.61	0.09	0.22	0.69	1.06	1.22	0.39
Bad	-0.04	0.14	0.78	-0.12	0.06	0.05	0.04	0.09	0.65	-0.08	0.31	0.79
Average												
Good	0.33	0.17	0.06	0.00	0.07	0.96	0.15	0.08	0.05	0.40	0.24	0.10
Very good	0.21	0.43	0.62	0.18	0.17	0.29	0.19	0.16	0.25	0.11	0.34	0.74
<b>Home characteristics</b>												
Home ownership	0.01	0.12	0.94	0.00	0.05	0.97	-0.01	0.07	0.84	-0.50	0.27	0.07
Drinking water	0.04	0.16	0.81	0.10	0.07	0.15	-0.09	0.10	0.35	0.45	0.45	0.33
Sewage	0.05	0.13	0.68	-0.06	0.05	0.30	-0.06	0.07	0.43	0.03	0.30	0.91
TV ownership	-0.06	0.14	0.67	0.15	0.06	0.01	0.00	0.09	0.98	0.47	0.32	0.15
<b>Satisfaction with life</b>												
Not at all satisfied	-0.41	0.23	0.08	-0.38	0.12	0.00	0.03	0.17	0.85	-0.08	0.42	0.84
Not very satisfied	-0.48	0.19	0.01	-0.29	0.08	0.00	-0.18	0.09	0.04	0.23	0.26	0.39
Fairly satisfied	-0.25	0.21	0.24	-0.08	0.08	0.31	-0.01	0.09	0.93	-0.25	0.27	0.35
Very satisfied												
<b>Coverage of health expenses</b>												
Private insurance	-0.39	0.28	0.17	0.22	0.10	0.02	0.19	0.11	0.08	0.78	0.26	0.01
Public insurance	0.07	0.15	0.66	0.08	0.07	0.25	0.03	0.08	0.73	-0.28	0.25	0.27
No insurance												

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Note: Health status very poor not included as too few observations in stratum for adequate coefficients/SEs.

Bolivian women whose health status is poor and have insufficient income are 0.30 to 0.34 points

less satisfied with their healthcare access (SE 0.26/0.28,  $p=0.24/p=0.22$ ), while those women whose

income is just sufficient are 0.31 points less satisfied with their healthcare access (SE 0.27,  $p=0.26$ ), when compared to those women whose income allows them to save. However those women whose health status is very good and have insufficient income are 0.28 to 0.57 points less satisfied with their healthcare access (SE 0.34/0.40,  $p=0.40/p=0.17$ ), while those women whose incomes is just sufficient are 0.64 points less satisfied with their healthcare access (SE 0.29,  $p=0.03$ ) when compared to those whose income allows them to save. In other words women's health condition has a significant impact on their healthcare access satisfaction when comparing different levels of income.

These women whose health status is poor and live in rural areas are 0.34 points more satisfied with their healthcare access (SE 0.20,  $p=0.09$ ), while those living in peri-urban areas are 0.47 points more satisfied with their healthcare access (SE 0.24,  $p=0.06$ ) and those living in large urban areas are 0.39 points more satisfied with their healthcare access (SE 0.39,  $p=0.03$ ) when compared to those women living in the capital in poor health condition. In addition, women's whose health status is average and live in the rural areas are 0.35 points more satisfied with their healthcare access (SE 0.09,  $p<0.01$ ), while those living in peri-urban and large urban areas are 0.26 points more satisfied with their healthcare access (SE 0.10/0.09,  $p=0.01/p<0.01$ ), when compared to those women living in the capital in average health condition. Interestingly those women in very good health condition living in the rural and peri-urban areas are 0.05 to 0.31 points less satisfied with their healthcare access (SE 0.36/0.40,  $p=.88/p=0.44$ ) while those living in the large urban areas are 0.05 points more satisfied with their healthcare access (SE 0.05,  $p=0.30$ ) when compared to those women living in the capital in very good health condition. In conclusion, women living in the rural and peri-urban areas of the country tend to be more satisfied with their healthcare access given their different health conditions.

Bolivian indigenous women in poor health condition are 0.12 points less satisfied with their healthcare access satisfaction (SE 0.13,  $p=0.34$ ), while those women in average health were 0.03 points less satisfied with their healthcare access (SE 0.05,  $p=0.54$ ) and women in very good health condition

were 0.21 points less satisfied with their healthcare access (SE 0.40, p=0.60) when compared to Spanish/white women. Although non-significant, in general Indigenous Bolivian women were generally less satisfied with their healthcare access regardless of their health condition.

Generally speaking, the better the health condition Bolivian women have the greater the difference marital status and being a chief income earner and owning a home have on their decreased healthcare access satisfaction. However, the better their health condition, the greater difference education, employment and unemployment/housework, having access to drinking water and owning a TV have on their increased healthcare access satisfaction. Finally, the better the health condition of women the less difference insurance makes in their healthcare access satisfaction.

#### 5) Stratified by health insurance

**Exhibit 11: Stratified multiple linear regression by health insurance type for satisfaction with access to healthcare for women in Bolivia.**

Characteristics N=2222 women	TYPE OF INSURANCE								
	Health insurance – none			Health insurance - public			Health insurance- private		
Household income	β	SE	p	β	SE	p	β	SE	p
Not sufficient, major problems	-0.19	0.10	0.06	-0.27	0.19	0.14	-1.21	0.26	0.00
Not sufficient, have problems	-0.07	0.09	0.45	-0.14	0.15	0.36	-0.54	0.19	0.01
Just sufficient, no major problems	0.04	0.09	0.64	-0.11	0.15	0.48	-0.39	0.17	0.02
Sufficient that you can save				Reference group					
<b>City/Town size</b>									
0-20000 (rural)	0.38	0.09	0.00	0.19	0.14	0.18	-0.11	0.22	0.62
20001-100000 (peri-urban)	0.38	0.09	0.00	0.22	0.14	0.13	-0.34	0.28	0.23
100,000 + (large-urban)	0.30	0.08	0.00	0.24	0.12	0.05	0.05	0.15	0.73
Capital (provincial capital)				Reference group					
<b>Year</b>									
2004				Reference group					
2005	0.12	0.06	0.05	0.00	0.11	1.00	0.13	0.18	0.46
2006	0.14	0.06	0.02	0.04	0.13	0.73	-0.16	0.18	0.36
2007	-0.11	0.06	0.07	-0.19	0.12	0.11	-0.13	0.19	0.48
<b>Age</b>									
18-25				Reference group					
26-40	-0.02	0.06	0.70	-0.08	0.11	0.48	0.04	0.19	0.82
41-60	-0.07	0.07	0.28	-0.12	0.13	0.38	0.22	0.22	0.32
61+	-0.11	0.09	0.23	-0.14	0.17	0.41	-0.03	0.29	0.91
<b>Ethnicity (mother tongue)</b>									
Spanish				Reference group					
Indigenous	-0.07	0.05	0.15	0.02	0.10	0.85	-0.35	0.18	0.06
Other	0.06	0.12	0.64	-0.11	0.22	0.61	-0.60	0.32	0.06
<b>Marital status</b>									
Married or living w/partner	0.06	0.06	0.34	0.08	0.11	0.48	-0.06	0.17	0.74
Never married				Reference group					
Separated/divorced/widower	0.05	0.09	0.58	0.21	0.16	0.19	-0.02	0.25	0.94
<b>Education level</b>									
Illiterate				Reference group					
Incomplete primary	0.13	0.06	0.05	-0.15	0.17	0.36	0.25	0.34	0.46

Complete primary	0.21	0.08	0.01	0.03	0.20	0.88	-0.28	0.44	0.53
Complete secondary, technical	0.11	0.08	0.18	-0.33	0.18	0.07	-0.03	0.40	0.94
Complete university	-0.11	0.12	0.35	-0.17	0.21	0.40	-0.16	0.44	0.71
<b>Employment</b>									
Self-employed	-0.32	0.13	0.01	-0.10	0.14	0.46	0.02	0.31	0.95
Salaried employee in public company	Reference group								
Salaried employee in private company	-0.22	0.14	0.12	-0.15	0.17	0.38	-0.29	0.33	0.38
Unemployed	-0.37	0.17	0.03	0.03	0.29	0.92	-0.12	0.42	0.78
Retired	-0.11	0.25	0.67	-0.15	0.20	0.44	0.89	0.54	0.11
Don't work – responsible for housework	-0.27	0.13	0.04	-0.09	0.15	0.53	-0.14	0.32	0.65
Student	-0.23	0.15	0.11	0.05	0.19	0.78	0.01	0.33	0.96
<b>Chief income earner</b>									
Yes	0.02	0.06	0.74	0.05	0.11	0.67	-0.21	0.19	0.26
<b>Socioeconomic level</b>									
Very bad	0.04	0.10	0.66	0.23	0.30	0.46	-1.18	0.47	0.01
Bad	-0.06	0.05	0.22	-0.02	0.12	0.85	-0.39	0.25	0.12
Average	Reference group								
Good	0.14	0.06	0.02	0.12	0.09	0.21	-0.10	0.14	0.50
Very good	-0.08	0.16	0.60	0.24	0.19	0.23	-0.02	0.22	0.93
<b>Home characteristics</b>									
Home ownership	-0.04	0.04	0.30	0.02	0.09	0.82	-0.11	0.14	0.47
Drinking water	0.06	0.06	0.29	0.02	0.13	0.88	0.00	0.24	0.98
Sewage	-0.06	0.05	0.22	0.03	0.10	0.74	-0.46	0.18	0.01
TV ownership	0.09	0.05	0.07	0.11	0.12	0.38	-0.20	0.32	0.52
<b>Satisfaction with life</b>									
Not at all satisfied	-0.21	0.10	0.04	-0.42	0.19	0.03	-0.57	0.34	0.10
Not very satisfied	-0.21	0.07	0.00	-0.41	0.11	0.00	-0.19	0.18	0.28
Fairly satisfied	-0.04	0.07	0.52	-0.17	0.11	0.11	0.05	0.17	0.76
Very satisfied	Reference group								
<b>Health condition</b>									
Very poor	-0.19	0.20	0.33	-0.51	0.34	0.14	-0.87	0.63	0.17
Poor	-0.29	0.14	0.04	-0.26	0.22	0.23	-1.09	0.29	0.00
Average	-0.24	0.13	0.06	-0.18	0.19	0.34	-0.54	0.21	0.01
Good	-0.14	0.13	0.27	-0.07	0.19	0.70	-0.35	0.20	0.08
Very good	Reference group								

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Bolivian women with no health insurance and whose income was not sufficient were 0.04 to 0.19 points less satisfied with their healthcare access (SE 0.08/0.10,  $p=0.45/p=0.06$ ), while those women who had sufficient income were 0.04 points more satisfied with their healthcare access (SE 0.08,  $p=0.64$ ), when compared to women who had no insurance and whose income allowed them to save. Women with public health insurance and whose income was not sufficient were 0.13 to 0.27 points less satisfied with their healthcare access (SE 0.15/0.19,  $p=0.36/p=0.14$ ), while those women who had sufficient income were 0.11 points less satisfied with their healthcare access (SE 0.14,  $p=0.48$ ), when compared to women who had public insurance and whose income allowed them to save. Women who had private insurance and whose income was not sufficient were 0.54 to 1.20 points less satisfied with their healthcare access (SE 0.19/0.26,  $p<0.01/p<0.01$ ), while women whose income was sufficient were 0.38 points less satisfied with their healthcare access (SE 0.16,  $p=0.02$ ), when compared to those women

who had private insurance and whose income allowed them to save. In other words, if women's health insurance was better (private) the less income they had the less they were satisfied with their healthcare access.

Women who had no insurance and lived in the rural and peri-urban areas were 0.37 points more satisfied with their healthcare access (SE 0.09/0.09,  $p < 0.01/p < 0.01$ ), while those living in the large urban areas were 0.30 points more satisfied with their healthcare access (SE 0.08,  $p < 0.01$ ), when compared to those women with no insurance living in the capital. Those women with public health insurance living in the rural, peri-urban and large urban areas were 0.19-0.23 points more satisfied with their healthcare access (SE 0.14/0.14/0.14,  $p = 0.18/p = 0.13/p = 0.05$ ) when compared to those women with public insurance living in the capital. Interestingly, women with private health insurance living in the rural areas were 0.11 points less satisfied with their healthcare access (SE 0.22,  $p = 0.62$ ), and those living in the peri-urban areas were 0.34 points less satisfied with their healthcare access (SE 0.28,  $p = 0.23$ ), while those living in the large urban areas were 0.05 points more satisfied with their healthcare access (SE 0.15,  $p = 0.73$ ), when compared to those women with private health insurance living in the capital. In general, women in the rural and peri-urban areas seem to be more satisfied with their healthcare access be they insured or not.

Bolivian indigenous women with no health insurance were 0.07 points less satisfied with their healthcare access (SE 0.05,  $p = 0.14$ ), while those with public health insurance were just as satisfied and those with private health insurance were 0.35 points less satisfied with their healthcare access (SE 0.18,  $p = 0.06$ ), when compared to Spanish/white women in the country. In general Indigenous women tend to be less satisfied with their healthcare access when compared to Spanish/white women.

Generally speaking, the better the health insurance women have the greater the difference education, having sewage in their homes, owning a TV, satisfaction with life and health condition make in their decreased healthcare access satisfaction, while the less difference age, marital status,

employment, owning a home or having access to drinking water make in their healthcare access satisfaction.

## **DISCUSSION**

### a) Summary of findings

This present study examined the association between income, location of home, ethnicity, health condition and health insurance on satisfaction with access to healthcare for Bolivian women. Individual level factors such as income, ethnicity, health condition and health insurance as well as contextual level characteristics such as location of women's home proved to be important predictors of healthcare access satisfaction for these women.

The results show that greater income is positively associated with healthcare access satisfaction for Bolivian women, after adjusting for other factors. Women with less income are less likely to be satisfied with their healthcare access consistently across categories. However the larger the size of the town/city women live in the greater the difference income has on their decreased healthcare access satisfaction. However, income makes little difference when comparing Spanish/white women to indigenous.

Interestingly women living in rural and peri-urban are more likely to be satisfied with their healthcare access after adjusting for other factors in the model. Although the health infrastructure in the rural and peri-urban might prove less adequate, women living in these areas might have different expectation levels when compared to those women living in the urban areas of the country. Additionally the greater income Bolivian women have the less difference the location of their home makes in their overall healthcare access satisfaction as such income can provide the means to access healthcare facilities in the urban areas.



However, Indigenous Bolivian women are generally less satisfied with their healthcare access after adjusting for other factors in the model. Indigenous Bolivia women tend to be less satisfied with their healthcare access even as the size of the town/city where their home is located is larger, while they tend to be less satisfied with their healthcare access even as their income increases, proving that ethnicity is an important covariate in the study.

While women with good to very good health condition are satisfied with their healthcare access, as their health condition is poorer they tend to be less satisfied with their healthcare access. This could partly be due to the fact that once their health condition worsens they seek access to healthcare and they experience these services first hand, having a more current perception of their satisfaction in this regard. In this regard, while women who have private health insurance are more satisfied with their healthcare access, as their income decreases so does their satisfaction. Also women with public health insurance or no insurance tend to be less satisfied with their healthcare access satisfaction. Evidently women with no insurance, which make up a significant portion of the sample, have to access the healthcare system through their own means, making their access limited to such means. In other words women who have less income will access services which are affordable, which might prove lacking in various services, leaving a number of needs unmet. Additionally, as a large portion of the women in the sample are not employed in the formal sector their access to public health insurance is diminished, making such access dependent on their own means.

In general, the results were consistent across categories and through the various models although it should be noted that the smaller sample sizes resulting by running the stratified models reduced significance levels, apparently diminishing the effects. However by running these different regression models results generated by chance were avoided and results confirmed, as some variables could have appeared to have greater differential effects when running a specific model.

## b) Limitations

Although logistic regression models can show associations between the independent variables and the outcome of interest they lack the ability to address causality. When these models are applied the distance between categories is assumed to be the same proving an important limitation to the study, as the direction of the effect can prove ambiguous. As the latent index becomes smaller, the probability mass shifts from higher categories to lower categories and any middle categories are assigned some of the probability that used to be assigned to the higher categories and, therefore, might lose some of its original probability mass to the lower categories associated with satisfaction with healthcare access satisfaction.

As the sample is self-weighted in relation to the characteristics of the country, the results could be generalized to the population, although care should be exercised when interpreting the results. While care was exercised to avoid misinterpretation of the odds ratios, as the sign on the coefficients might not always correspond to the marginal effect change, the results were only analyzed at the significance levels of the primary regressor of interest and other covariates as well as their association with healthcare access satisfaction. In addition, running stratified models and treating satisfaction with healthcare access as continuous allowed for ease of interpretation and a better understanding of the analyses and results.

Selection is a significant limitation to this study as the Latinobarometro respondents self-select into categories which could be interpreted as a “treatment group” vs. “non-treatment” groups based on their life experiences and history. As the control groups are non-equivalent, due to the lack of randomization, we are not able to assign the persons to each of the groups and, therefore, must accept the composition generated as given and account for factors contributing to the differences of the population within those groups through statistical means by adjusting for the covariates.<sup>94</sup> In addition, as the Latinobarometro survey is based on self-reported data that is part of a public use file, the

variables may be subject to measurement error, although it is understood that significant effort is put to avoid this throughout the different countries. Therefore, when dealing with various interviewers, instrumentation or testing threats may be present, as the interview could have been misunderstood or performed differently, clearly affecting the self-reported data by the respondents and generating bias. In addition, the predictions could be out of a feasible range, such as the fifth category where no access is present, and providing a greater range of possible results.

Omitted variable bias is another significant limitation to this study. For example one of the most common proxies used to measure healthcare access and, therefore satisfaction with such access, is utilization. Utilization may be measured by such indicators as the average number of consultations or hospital admissions or it may be measured by the share of the relevant population receiving particular services first-hand; for example, the share of pregnant women who get prenatal care, of children who are fully immunized, or of people with diabetes who are receiving necessary chronic care. Other variables that could be included in the study but were not available were health condition assessment (by healthcare professional), availability of health services infrastructure, type of healthcare accessed (inpatient, outpatient, private, public, other), current health risks in the area/region and health behaviors amongst others. However while these variables were not included in the initial survey obtaining them from other sources was not plausible as they generally have not been quantified with some level of precision for Bolivia. Furthermore, given the differences in population level characteristics and individual level characteristics of such populations the insertion of this data in the model from secondary sources might not prove adequate given the limitations present.

Although causality cannot be inferred by the cross-sectional analysis of the data, the sequential multiple linear regressions and ordered logistic regression model could suggest potential mechanisms linking various factors which will merit further investigation in the following studies. Pooling the results from different years provided a more robust and definite understanding as to the effect of the

independent variables on the outcome of interest. However, as healthcare access satisfaction for a certain population could be based on expectations due to cultural or contextual characteristics, further comparative studies between Latin American countries will prove worthwhile to increase the understanding and association between the independent variables and the outcome of interest. Although a case could be made for existing differences in health infrastructures throughout the different countries, this aspect could partially be adjusted for in the models with current rankings of healthcare systems throughout the region.

## **CHAPTER 3: VARIATIONS IN SATISFACTION WITH ACCESS TO HEALTHCARE FOR WOMEN IN LATIN AMERICA**

### **A. BACKGROUND ON LATIN AMERICA**

The Latin American region varies greatly in its epidemiological profile, yet it faces a series of common of health challenges. The persistence of diseases such as dengue, tuberculosis, chagas and malaria and the emergence of new diseases such as HIV/AIDS, as well as increasing cases of microbial resistance, emphasize the need for flexible and responsive systems. In addition, the changing epidemiological profile of the population, with an increase in morbidity from diabetes, heart disease and cancer pose additional challenges to public health systems.<sup>95</sup> However, the countries in the region as a whole are in a fairly advanced stage of what has been called a health transition, where prevention and treatment for most infectious diseases are fairly widespread, while interventions for non-communicable disease is becoming generalized.

Throughout the 1990s, Latin American countries implemented a series of Health Sector Reforms with the goal to increase equity, effectiveness, quality, efficiency, sustainability and social participation.<sup>96</sup> While these reforms have had some positive outcomes in reducing inequities in access and improving resource allocation, they have not been successful in achieving the full scope of the proposed goals.<sup>97</sup> Even though the region has witnessed outstanding strides in the improvement of some basic health indicators in recent decades; the overall public health situation is still deficient in many countries.<sup>98</sup> Avoidable mortality, for example, still surpasses one million deaths annually.<sup>99</sup> However the countries in the region have demonstrated that they can provide essential health services, even for non-communicable diseases, to significant shares of their population.<sup>100</sup>

#### a) Health infrastructure and financing

Governments are usually the main financiers of health actions and the ones responsible for ensuring that there are enough resources and a sustainable source of funding for public health activities. However, in most cases, the governments' attention and resources have been concentrated in personal health services, such as diagnostic and clinical treatment services, and particularly hospital-based services that consume a large proportion of government health budgets.<sup>101</sup> However, the increasing access to healthcare services has been important when contrasted with the pace at which the demand for health services has grown.

Latin America's population tripled over the last 50 years, from about 180 million to 569 million today, while the physical resources available to provide healthcare have expanded quite rapidly. This rapid expansion of health service resources does not necessarily mean that more services were available to everyone, since the increase could have been highly concentrated in major metropolitan regions.<sup>102</sup> As a result of the rapid increase of healthcare workers in the region it has an average of 8.0 health service providers per 1,000 people—including 1.4 doctors and 2.0 nurses for every 1,000 people. Although the ratio of doctors is particularly low in countries like Nicaragua (0.37), it is relatively high in countries like Uruguay (3.65) and Argentina (3.01), when compared to ratios in Canada (2.14) and the United States (2.45).<sup>103,104</sup>

Access to healthcare services also appears to have increased when measured by enrollment in public insurance. For example, Colombia, Chile and Costa Rica have effectively reached universal health insurance enrollment.<sup>105</sup> While social security is the principal form of public financial support for the use of healthcare services, governments also directly subsidize services for particular populations, either through payments to providers or through direct provision by government facilities. Some people also purchase their own private health insurance, although in Latin America the share of the population is generally small, with the exception of a few countries such as Brazil, Chile, and Uruguay, where private

health insurance covers 21%, 24 % and 38 % of the population, respectively.<sup>106</sup> Average national health expenditure per capita for the region in 2007 was USD PPP 567, although the range varied widely, from the country with the lowest health expenditure per capita which was Bolivia with USD PPP 190 to the country with the highest health expenditure per capita which was Argentina with USD PPP 981. Meanwhile, health expenditures as percentage of total GDP for 2007 for the region as a whole was in average 6.60%, with average private health expenditures totaling 3% of the GDP and average public health expenditures totaling 3.10% of the GDP.<sup>107</sup> As incomes in the region rose, people spent more and more money on healthcare, through out-of-pocket payments or private health insurance premiums, clearly representing half of all health expenditures for the region.<sup>108</sup>

Healthcare financing in the Latin American region is characterized by a high level of “verticality”: that is, each type of financing intermediary—government, social insurance, private insurance, firms, and households— largely pays for healthcare from providers in that sector. In other words, government departments fund government-owned providers; social insurance agencies largely fund social insurance-owned hospitals and clinics; and private payers purchase healthcare from private providers.<sup>109</sup> Public sector payers provide a larger share of financing for inpatient services and for hospitals, as well as for the public health goods of prevention and promotion. Private sector payers, which are dominated by household direct payments, provide a larger share of financing for outpatient treatment of illness and for private clinics and individual physicians.<sup>110</sup> Outpatient illness care includes many priority health interventions that address common and serious child and adult disease. However, governments have yet to analyze their roles as regulators and financiers more aggressively to improve efficiency and equity in these services.<sup>111</sup>

In sum, healthcare services provision in Latin America is more available, accessible and affordable than it has been in the past. The supply of healthcare services has grown relative to the

population or its healthcare needs, and these services are more accessible because they are less spatially concentrated than before, although much has yet to be done to reach all the populations.<sup>112</sup>

#### b) Women in Latin America

Although all Latin American country constitutions guarantee equal rights for men and women, much of legislation has not been updated to reflect this. Women in general tend to have a lower social status than men, as many women are not aware of their rights while the boundaries of tradition remain strong. However, not only is legislation discriminatory against women, but women may not be aware of their rights under the law or the law is erroneously interpreted by men and institutions, particularly when sexual equality or family violence is involved.<sup>113</sup> In addition, women's literacy ratio when compared to men for the region remains lower, in average 0.96, while their average income ratio for the region is significantly less than 0.70.<sup>114</sup> In addition, a perceived trend in most countries of the Latin American region is the increase of female headed households, a phenomenon that could be explained in terms of the instability that is created due to lack of work and economic pressures on the couples, or due to a tendency related to modifications in the traditional gender roles.<sup>115</sup>

Women of lower socioeconomic status in these countries suffer mostly from complications of pregnancy and childbirth. Every year, more than 22,000 women die as a result of complications from pregnancy and childbirth in Latin America, being the majority of these deaths preventable.<sup>116</sup> The World Health Organization and the United Nations report that the proportion of ever-partnered women who had ever experienced physical or sexual violence by an intimate partner in the region ranged from 16-59%.<sup>117,118</sup> The estimated annual number of abortions in the region is 4.1 million of which all but approximately 200,000 are unsafe.<sup>119</sup> Each year, adolescent Latin American women account for 18% of all births in Latin America.<sup>120</sup>



Maternal and child mortality and morbidity remain one of the most important health challenges in the region. The infant mortality rate for 2007 was approximately 47.3 per 1,000 live births, with the lowest quintile rate at 62.9 and the highest quintile at 30.8.<sup>121</sup> The under five-mortality rate for the region was 63.6 per 1,000 live births, with the lowest quintile rate at 86.5 and the highest quintile rate at 34.8.<sup>122</sup> In 2005, the maternal mortality for the region was 190 per 100,000 and although this number is high, it becomes more shocking when disaggregated in terms of rural and urban mortality rates.<sup>123</sup> What makes this number more tragic is that it is unnecessarily high, as most deaths related to pregnancy and childbirth in the country could be prevented through appropriate access and use of prenatal health services.<sup>124</sup> However, in the same period, life expectancy at birth for the region increased to 76 years for women, somewhat greater than men, although this could have been even higher were it not for the significant infant mortality in the region.<sup>125</sup>

#### c) Access to healthcare for women in Latin America

Prenatal care and skilled birth attendance are among the clearest indicators of a well-functioning healthcare system and a good measure of access to healthcare for women, as these services are predictable, well understood, proven and required for a large and important share of the population.<sup>126</sup> However, high rates of prenatal care and skilled birth attendance require more than the availability of a supply, as women also need to believe that such services are worthwhile and choose to use them. The region's rates of prenatal care and skilled birth attendance are relatively high compared to other developing regions, where 83% of pregnant women have three or more prenatal consultations, while 82% percent are attended to by a skilled birth attendant.<sup>127</sup> While the barriers to using available services may be cultural, geographical or financial, they can also include lack of information on the value of these services. For example, in some countries, access to these services may be widespread and equitable, like in the Dominican Republic where there is a high rate of utilization of these services,

considering its level of income, however in most of the region's countries, prenatal care and skilled birth attendance are not widespread or equitably distributed. For example, in countries like Bolivia, Guatemala and Peru, less than half the pregnant women in the poorest income quintile receive these services, despite rates exceeding 90% for those pregnant women in the highest income quintile for these same countries.<sup>128</sup>

However, the region's context has been conducive to greater healthcare access for women in the last decade, given the Millennium Development Goals established by the United Nations for 2015. In this regard, maternal and child health have become priorities in the region and programs have been implemented to increase this access, such as expanding countries' capacity in the region to provide selected interventions in Essential Obstetric and Neonatal Care Services.<sup>129</sup> Although the available estimates indicate that the ratio has held steady at about 190 deaths per 100,000 births in Latin America during the past decade, and this is by no means a positive signal with regard to progress towards the target of reducing this ration by three quarters, consideration must be given to the fact that large differences exist among the countries of the region and the substantial progress that many of them may be expected to make. For example, only a small group of countries, like Uruguay, Chile, Argentina, Brazil and Costa Rica have levels below 50 deaths per 100,000 births, while rates in the remainder range from 60 to 420 maternal deaths per 100,000 live births.<sup>130</sup> Although one of the factors directly related to these deaths is adequate treatment for these pregnant women by skilled healthcare personnel, another significant factor includes the existence of disparities within countries. For instance, surveys have revealed that women living in the countryside are less likely to be attended by skilled personnel when they give birth than those women in cities.<sup>131</sup> Evidently as actions are implemented in achieving this goal, policies to reduce maternal mortality should take these differences into account and address them accordingly.

In addition, in the last few years, proposals to increase access to healthcare services were implemented in the region, while trying to simultaneously reduce financial risk, by extending health insurance coverage to entire populations, which has led to some rapid expansion of access to healthcare in the region. For example, Guatemala extended basic healthcare to an additional 3.4 million by contracting non-governmental organizations; while Colombia implemented a subsidized scheme that increased coverage to an additional 13 million people from 1993 to 2004 (raising insurance coverage from 6 percent to 43 percent in the poorest quintile over the same period); and Mexico has recently added 22 million people to the rolls of its “Seguro Popular”. However, efforts that have relied exclusively on extending coverage through publicly-provided and owned healthcare facilities have been rare. The most successful examples are Costa Rica and Chile, who built their effective networks of public healthcare provision prior to 1980, in periods with lower incomes and lower expectations because medical technology was much less advanced.<sup>132</sup>

In sum, women in Latin America have more access to better healthcare than they have had before; with the exception of relatively few countries, like Uruguay, where only the wealthiest quintile receives access to significantly more healthcare services than others.<sup>133</sup> This has proven true whether access is measured for preventive care (e.g., immunization, prenatal services, and professional birth attendance) or curative care (e.g., general consultations, hospitalizations, emergency treatment).<sup>134</sup> The variations across income groups demonstrates that supply limitations, financial barriers, geographical barriers or political obstacles account for the remaining gaps in the population’s access to healthcare services.<sup>135</sup> While women continue to be the first educators, caretakers and protectors of children, the study of healthcare access satisfaction in the region can prove instrumental as great strides could be made to increase these rates if health services access is adequate and effective.<sup>136,137</sup> Given this backdrop, the aim of this study will be to assess variations in healthcare access satisfaction for Latin American women by taking into account various demographic and contextual variables.

## **B. RESEARCH QUESTIONS AND HYPOTHESES**

How do demographic or contextual factors affect healthcare access satisfaction for Latin American women? As significant variations may exist, the main hypotheses that will be tested in the current study include:

- Greater income is positively associated with healthcare access satisfaction for Latin American women, after adjusting for other factors (employment, marital status, education, age, health condition, chief income earner status, health insurance/expenses coverage, location of home, characteristics of home, healthcare spending per capita and country health system ranking).
- Latin American women living in urban areas are more likely to be satisfied with their healthcare access, after adjusting for other factors (poverty level, employment, marital status, education, age, health condition, chief income earner status, health insurance/expenses coverage, characteristics of home, healthcare spending per capita and country health system ranking).
- Latin American women with better health insurance are more likely to be satisfied with their healthcare access, after adjusting for other factors (poverty level, employment, marital status, education, age, health condition, chief income earner status, location of home, characteristics of home, healthcare spending per capita and country health system ranking).
- Greater health spending per capita is positively associated with healthcare access satisfaction for Latin American women, after adjusting for other factors (poverty level, employment, marital status, education, age, health condition, chief income earner status, health insurance/expenses coverage, location of home, characteristics of home and country health system ranking).
- Latin American women in better health condition are more likely to be satisfied with their healthcare access, after adjusting for other factors (poverty level, employment, marital status, education, age, chief income earner status, health insurance/expenses coverage, location of

home, characteristics of home, healthcare spending per capita and country health system ranking).

Through the intended work it is hypothesized that Latin American women living in greater poverty are less likely to be satisfied with healthcare access as well as those living in rural areas, where language barriers and health infrastructure challenges certainly exist. However, Latin American women living in urban areas are more likely to be satisfied with their healthcare access, as health infrastructure is more readily available. In addition, Latin American women in worse health condition are less likely to be satisfied with their healthcare access, while women who have access to better health insurance schemes and have greater coverage are more likely to be satisfied with their healthcare access, as well as those women living in countries where greater amounts are invested by their governments for healthcare, reflected through their national healthcare spending per capita.

### **C. CONCEPTUAL MODEL** <sup>138,139,140,141,142,143,144</sup>

The conceptual model that provides the theoretical foundation for the study proposed is derived from the Andersen Behavioral Model which focuses on factors that influence access to healthcare at the contextual and individual levels and, consequently, how satisfaction with access to healthcare is influenced by such.

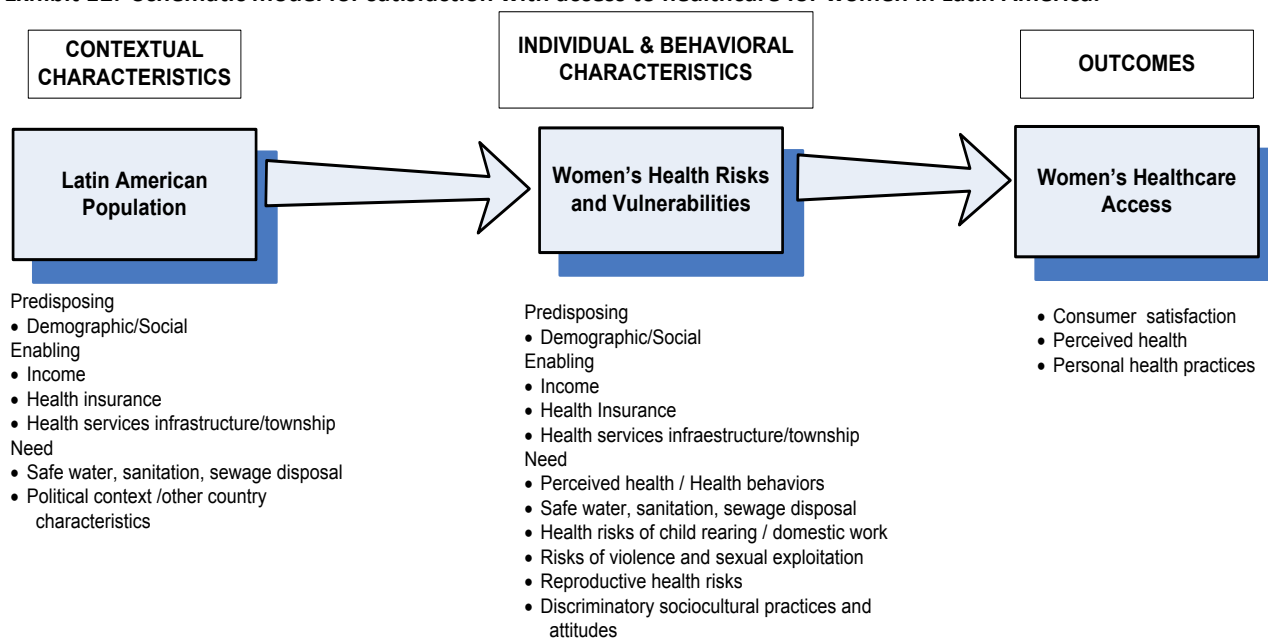
Numerous factors affect satisfaction with access to healthcare. The individual-level factors are the direct characteristics that have an impact on healthcare access for women in Latin America. Relevant family or household-level factors in this domain include family income, level of education, employment status and/or type of work, location of home (urban or rural) and marital status (which has an effects on income and employment). These factors are included as predisposing and enabling characteristics, as there are factors which “a priori” influence access to healthcare and, therefore, satisfaction. Also, when assessing healthcare access satisfaction, self perceived health status by the

female population becomes an important factor to help predict morbidity and mortality. A large number of studies have demonstrated that a person's own appraisal her/his general health is a powerful predictor of future morbidity and mortality, even after controlling for a variety of physical, socio-demographic and psycho-social health indicators.<sup>145,146,147</sup> The 'multidimensional' nature attributed to self-reported health questions mainly translates to it being a holistic measure of health status.<sup>148</sup> This in turn will lead to a better understanding of healthcare access needs, behaviors and satisfaction.<sup>149,150</sup> Beliefs by the population based on traditions and ethnicity, are also important as they delineate the behavior when accessing healthcare services in the different Latin American countries.

Contextual factors are those that impact all persons in a certain geographic unit and may affect their access to healthcare and, therefore, their satisfaction. While the geographic unit of analysis in this study includes eighteen Latin American countries, differentiations can be made in each country by the size of the towns and cities in which respondents live as health services tend to be more readily available in the larger urban areas. In addition, these can be categorized as rural or urban and specific characteristics of the home are obtained (access to drinking water and sewage system) which in themselves provide contextual predisposing and enabling characteristics. These public health measures, such as access to safe water, sanitation and sewage disposal are known to be more important in disease prevention and reduced mortality than medical interventions in developing countries. Such health measures require nationwide investments in physical infrastructure, environmental safety, as well as educational and extension programs, that need to be directed mostly at women as the caregivers of children and other household members. In this regard, the political context becomes instrumental as it provides the characteristics of "need" that such systems are expected to uphold given their citizens' rights and opportunities, while providing mechanisms by which such rights are implemented (education, sewage, sanitation, etc.). In the extent that they do so, they create an atmosphere of mutual respect and a supportive environment which breeds positive feelings of self-worth, optimism, and hopefulness

among their population. This is particularly important for women whose rights and dignities have historically been denied by the tyranny of authoritarian regimes as well as by rigid social traditions as supported by these regimes. Women are increasingly finding their rightful place in various arenas of social and political life and are demanding their rights to self-determination and their entitlements to an equitable share of society's resources.

**Exhibit 12: Schematic model for satisfaction with access to healthcare for women in Latin America.** <sup>151,152,153</sup>



#### **D. STUDY DESIGN**

Although ideally the causal relationship stated in the hypotheses between income, location of home, health status, health insurance/coverage expenses and healthcare spending per capita with healthcare access satisfaction would be best ascertained through a longitudinal study, the lack of such study for Latin America in general is evident. However, a cross-sectional survey containing the relevant information and covariates as found in the Latinobarometro survey, can be employed to test these relationships between these independent variables and the outcome of interest.

As the survey data is based on self reported conditions by respondents selecting categories that define their situation relevant to their life and experiences, and such information is about current point-

in-time occurrences, the study remains quasi-experimental and retrospective in nature. These study designs are generally used for associative studies, as the survey does not randomly assign persons to one group or another, but rather accepts the composition of these groups as given for the factors contributing to the differences in the population within those groups through statistical means, (such as adjusting for different covariates). In this regard, a number of statistical methods allow to control for selection and aid in making causal inferences.<sup>154</sup>

#### a) Data Sources

The Latinobarometro survey will provide the necessary data to allow for the processing and analyses of information. This survey is an annual public opinion survey that involves 19,000 interviews in 18 Latin American countries each year, representing more than 400 million inhabitants, and researches the development of societies, economies and democracy in the region, using indicators of opinion, attitudes, behavior and values. The sample size consists of approximately 1,000-1,200 interviews per country per year and is self-weighted with respect to sex, age and educational level making it fully representative of the Latin American adult population (18 and over).<sup>155</sup> Only face to face interviews are carried out in September every year and data is simultaneously gathered throughout the region.

#### b) Sample Design

For the study, information on Latin America will be analyzed for the years in which the healthcare access questions were included in the survey (2004-2007). The sample size for the 18 countries is equal to 80,271, representing approximately 1,000-1,200 cases per country per year, with a sample error of +/- 2.8% and a 95% confidence interval. The coverage per country is national and includes the totality of the population 18 and over representing both urban and rural alike. The sample is obtained matching the distribution of the population in the country as per census data for each



country. The sampling is a modified probabilistic sample done in phases in the urban (4) and rural (5) areas depending on the characteristics of each country. In this regard, the different years for each country will be pooled to provide with greater robustness in the analyses.

<b>SAMPLING</b>	<b>URBAN</b>	<b>RURAL</b>
First phase	Selection of localities by department type and area	Selection of localities by department and type of area
Second phase	Selection of clusters (blocks) using systematic probabilistic sampling and random starting points in sample framework ordered by districts, zones and blocks.	Selection of zones using systematic probabilistic sampling and a random starting point. From the locality's central square (plaza) the interviewer identifies its zones (north, south, east and west) and starts in one of these zones as indicated on his/her route map.
Third phase	Selection of dwellings using systematic probabilistic sampling (every third dwelling) and a random starting point.	Selection of clusters (blocks) using systematic probabilistic sampling and a random starting point in a sample framework ordered by districts.
Fourth phase	Selection of interviewees by sex, age and educational level quotas	Selection of dwellings using systematic probabilistic sampling (every third dwelling) and a random starting point.
Fifth phase		Selection of interviewees by sex, age and educational level quotas

*Note: Sample is self-weighted with respect to sex, age and educational level for each country and so no weighting factors are used. In addition, sampling phases were applied per country characteristics and, therefore, not all countries required implantation of all sampling phases. All questionnaires were checked for errors in the data collection stage. Subsequently, open-ended questions were codified using the code table previously prepared by transcribing 30% of the answers. In order to control coding, 30% of work was checked by critical editor.<sup>‡</sup>*

## **E. MEASURES**

The variables in the models for the study can be grouped by the different dimensions in the conceptual framework which include contextual level characteristics, individual and behavioral characteristics and the outcomes. In that regard, by using the variables contained in the Latinobarometro survey we have the following:

- *Dependent variable:* Healthcare access satisfaction which includes four levels: very satisfied, rather satisfied, not very satisfied and not at all satisfied.
- *Independent regressors of interest:* variables which define the dimensions under analysis:
  - Income which includes four levels: sufficient that you can save, just sufficient (no major problems), not sufficient (have problems) and not sufficient (have major problems).

- Location of home (urban, peri-urban or rural), which includes four levels by populations: rural from 5000 to 20000, peri-urban from 20001 to 100000, large urban >100000 and provincial capital.
- Self-reported health condition which includes five levels: very poor, poor, average, good and very good.
- Health insurance/expenses coverage, which includes no insurance, public insurance and private insurance.
- National health spending per capita per country per year, in US dollars and purchasing power parity to allow for adequate comparisons between countries through the time period in question.
- Other regressors of interest will include: poverty level, employment marital status, education, age, chief income earner status, characteristics of home and country health system ranking.

These variables, mostly categorical or dichotomous and their hypothesized effects on healthcare access satisfaction for Latin American women are described in the table below.

**Exhibit 13: Theoretical predictors and hypothesized effects on satisfaction with access to healthcare for women in Latin America.**<sup>156</sup>

Theoretical Predictor	Hypothesized Effect on the Dependent Variable	Measured Variable	Data Source
<b>Individual Level Factors</b>			
Household income	Greater income leads to greater satisfaction with healthcare access	1) it is sufficient that you can save 2) it is just sufficient, no major problems 3) it is not sufficient, you have problems 4) it is not sufficient, have major problems	Latinobarometro 2004-2007
Age	Older persons will have less satisfaction with healthcare access	1) 18-25 2) 26-40 3) 41-60 4) 61 +	Latinobarometro 2004-2007
Ethnicity (mother-tongue)	Indigenous persons will have less satisfaction with healthcare access.	1) Spanish (white) 2) Portuguese -3) indigenous 4) other	Latinobarometro 2004-2007
City size	Persons living in urban areas will be more likely to be satisfied with healthcare access	1) Rural/5000 -20000) 2) Peri-urban/20001-100000 3) Large urban>100000 4) Capital	Latinobarometro 2004-2007
Marital status	Persons who are married or living with partner will require greater access and will likely be less satisfied with healthcare access	1) married-living w/partner 2) single 3) separated-divorced-widower	Latinobarometro 2004-2007
Health status	Persons with better health status are more likely to be satisfied with healthcare access	1) very good 2) good 3) average 4) poor 5) very poor	Latinobarometro 2004-2007

<sup>†</sup> In the main cities, each of the blocks contained in the sample framework of APOYO Opinión y Mercado has been assigned a predominant socioeconomic level. In these cities, stratification proportional to each block's predominant socioeconomic level was used in the selection program.

Coverage of health expenses	Persons who have private insurance will be more likely satisfied with healthcare access	1) private insurance 2) public insurance 3) no insurance	Latinobarometro 2004-2007
Education Level	Persons with greater education will have better access to healthcare and therefore more likely to be satisfied with healthcare access.	1) Illiterate 2) Incomplete primary 3) Complete primary 4) Incomplete Secondary, technical 5) incomplete Secondary, technical 6) Incomplete university 7) complete university	Latinobarometro 2004-2007
Employment	Persons who are employed will have better access to healthcare and therefore will more likely be satisfied with their healthcare access.	1) self employed 2) salaried employee in a public company 3) salaried employee in a private company 4) temporarily out of work 5)retired 6) don't work-responsible for shopping and house work 7) student	Latinobarometro 2004-2007
Chief income earner	Persons who are the chief income earners will be more satisfied with their healthcare access	1) Yes 2) No	Latinobarometro 2004-2007
Socioeconomic level	Better socioeconomic level will lead to greater satisfaction with healthcare access	0 no answer / 1 very good / 2 good / 3 not bad / 4 bad / 5 very bad / 9 not applicable	Latinobarometro 2004-2007
Satisfaction with life	Persons who are more satisfied with their lives will have greater satisfaction with healthcare access	1) very satisfied 2) fairly satisfied 3) not very satisfied 4) not at all satisfied	Latinobarometro 2004-2007
<b>Contextual Level Factors</b>			
Ownership of home	Persons who own their home will have access to various utilities and will more likely be satisfied with their healthcare access.	1) yes 2)no	Latinobarometro 2004-2007
Access to drinking water	Persons who have access to drinking water will need less healthcare and will likely be more satisfied with their healthcare access	1) yes 2)no	Latinobarometro 2004-2007
Sewage	Persons who have access to sewage will need less healthcare and will likely be more satisfied with their healthcare access	1) yes 2)no	Latinobarometro 2004-2007
TV ownership	Persons who own have access to a TV will be better informed of their options and will more likely be more satisfied with healthcare access.	1) yes 2)no	Latinobarometro 2004-2007
Country health system ranking	Persons living in a higher ranked country will have access to better healthcare conditions and will be more likely to be satisfied with their healthcare access.	1)Colombia 2)Chile 3) Costa Rica 4)Dominican Republic 5)Venezuela 6)Paraguay 7) Mexico 8)Uruguay 9)Nicaragua 10)Argentina 11)Guatemala 12)Panama 13)Ecuador 14)El Salvador 15)Brazil 16)Bolivia 17)Peru 18)Honduras	World Health Report, WHO, 2000 Health system ranking, Latin America
National Health spending per capita per year (USD PPP)	Persons living in a country with greater health spending per capital will be more likely to be satisfied with their healthcare access.	Range from USD 173 to USD 981 / Mean USD 519.10	World Bank 2004-2007

### a) Methods and Analyses

The data sets for the 18 countries were analyzed and coded accordingly to allow for initial analyses while maintaining consistency when doing the cross national comparisons. In addition, two variables, from different sources were included and merged within the data sets using country tags to uniquely identify them. These variables included national healthcare spending per capita with purchasing power parity USD per country per year, for 2004 to 2007, and country health system ranking for the Latin American region, which provided with a single indicator per country created by the World

Health Organization in 2000, applied to the years and countries in the study. As both variables were not part of the original survey, tests were run at the single variable level to ascertain that these were consistent with the original data sets, while maintaining consistency between population level data and the individual level data in the survey.

Summary statistics were obtained for all measures with frequency counts for each of the categorical and dichotomous variables. While age was a continuous variable, it was re-coded (by Latinobarometro) into a categorical variable as per defining health characteristics to different age groups while healthcare spending per capita was kept as a continuous variable. In addition, bivariate associations were analyzed a priori, as these comparisons were necessary to examine the basic distributions of the population within each healthcare satisfaction category. In this regard the healthcare satisfaction variable was examined for the associations with individual-level covariates, contextual-level covariates and access outcomes. Correlation tests were also performed to ascertain any collinearity that could result from the survey questions through the respondent's answers. In this regard, as the health system ranking indicator contained measures of healthcare spending for its calculation, an orthogonal measure of health system ranking was created to avoid any collinearity with healthcare spending per capita. Additional graphical analyses for a number of variables were carried to ascertain distributions and provide a clearer understanding of the implications of the merged data together with the cross sectional data of the Latinobarometro and their behavior throughout the years.

As the Latinobarometro survey provides a repeated cross-section design, where similar surveys are administered on a yearly basis to a different probabilistic sample every year throughout the different Latin American countries, a fixed effects model was implemented initially. Although the outcome measure is categorical, tests carried out in the previous chapter proved the consistency and efficiency of linear regression models when compared to ordinal regression models, by providing comparable magnitudes and effects. Therefore, country fixed effects multiple linear regression models were applied

to allow for ease of interpretation of these magnitudes and effects, while identifying variations in healthcare access satisfaction throughout the 18 countries and controlling for the possibility of unobserved or underlying factors which may affect healthcare satisfaction. A year dummy was also included for the different years as well as country tags.

Because the fixed-effects estimator is based on the differences from the mean, measurement error could pose a limitation, as measurement error in one time period could infect the observations from the other periods, by altering their relative difference from the error affected mean.<sup>157</sup> In this regard, fixed effects models assume that the unobservable effects are fixed parameters to be estimated, rather than outcomes of a random variable and, therefore, the results are intended to apply to women, while the unobservable effects are allowed to be correlated with the other covariates. The fixed-effects estimator uses only the “within” variation.<sup>158</sup> Although random effects would allow for the observations to be random draws from a large population and the results to be generalized for the entire population and prove more efficient, these could not be applied as the number of regressors exceeded the number of clusters (or countries), turning the model into an ordinary least squares calculation.<sup>159</sup> However random effects would have posed the additional assumption that there is no omitted variable bias which creates a correlation between the effects and the regressors.<sup>160</sup> Hausmann tests were applied and fixed effects proved consistent and efficient, given the limitation of the random effects model on the number of regressors in the equation. However care should be exercised as the test could be underpowered and likelihood exists that it is less likely to reject the null hypothesis given that it’s false.<sup>161</sup>

In addition, multiple linear regressions with country cluster correction were also applied to compare the results with the country fixed effects model and prove the consistency and efficiency of the results, while avoiding measurement error due to infection from one period to the next. Post-estimation tests were also applied for the variables in the model to ascertain significance levels, which

were maintained throughout all the post-estimation tests. Comparisons between both models provided with a clearer understanding of the consistency and efficiency of the coefficients, as well as the magnitudes and effects, while also allowing for ease of interpretation in responding the research questions.

As the statistical significance and relative magnitudes of the multiple linear regression models proved consistent, a final set of country-individual and stratified analyses were performed. These treated satisfaction to healthcare access as a continuous variable for ease of interpretation while maintaining the consistency of results. These were stratified by the regressors of interest: income, location of home, health condition, health insurance/coverage expenses and healthcare spending per capita while including the country fixed effect estimator in the models to allow for adequate adjustment for the country effect. In addition, individual country analysis and stratified analyses were performed by healthcare spending per capita and healthcare access satisfaction and by the regressors of interest (income, location of home, health condition and health insurance/coverage expenses), to ascertain the effect of one on the other, while doing country cross comparisons to verify the results. Finally, as women in poorer health condition will tend to access healthcare services more often and have a firsthand experience of these services, by having a more current perception of their satisfaction, further analyses by the key stratification variables were made. In this regard stratifications by health condition, comparing those women in very poor and poor health versus those in very poor, poor and average health, helped increase our understanding of the magnitude and effect of the key variables (income, location of home, and health insurance/coverage expenses) on their healthcare access satisfaction. Stata 10 (version 9) was used for all the analyses in question and the results are reported in the next section.

## RESULTS

### a) Descriptives

The sample characteristics of Latin American women interviewed in the Latinobarometro survey for the years 2004 to 2007 for the 18 different countries are described in the table below.

**Exhibit 14: Sample characteristics of Latin American women interviewed from 2004 to 2007.**

Characteristics	Number (%)
<b>N=37,971 women</b>	
<b>Year</b>	
2004	9,396 (24.75%)
2005	9,608 (25.30%)
2006	9,617 (25.33%)
2007	9,350 (24.62%)
<b>Individual level factors</b>	
<b>Household income</b>	
Not sufficient, major problems	6,787(17.87%)
Not sufficient, have problems	14,713 (38.75%)
Just sufficient, no major problems	13,652 (35.95%)
Sufficient that you can save	2,819 (7.42%)
<b>Age</b>	
18-25	9,264(24.48%)
26-40	13,404(35.30%)
41-60	10,449(27.52%)
61+	4,824(12.70%)
<b>Marital status</b>	
Married or living w/partner	21,341(56.20%)
Never married	10,601(27.92%)
Separated/divorced/widower	6,029(15.88%)
<b>Education level</b>	
Illiterate	3,749(9.87%)
Incomplete primary	8,509(22.41%)
Complete primary	13,095(34.49%)
Complete secondary, technical	9,829(25.88%)
Complete university	2,789(7.35%)
<b>Employment</b>	
Self-employed	8,578(22.59%)
Salaried employee in public company	2,350(6.19%)
Salaried employee in private company	4,729(12.45%)
Unemployed	1,774(4.67%)
Retired	2,144(5.65%)
Don't work – responsible for housework	15,838(41.71%)
Student	2,558(6.74%)
<b>Chief income earner</b>	
No	26,109(68.76%)
Yes	11,862(31.24%)
<b>Socioeconomic level</b>	
Very bad	1,343(3.54%)
Bad	5,830(15.35%)
Average	16,028(42.21%)
Good	12,201(32.13%)
Very good	2,569(6.77%)
<b>Satisfaction with life</b>	
Not at all satisfied	1,735(4.57%)
Not very satisfied	10,028(26.41%)
Fairly satisfied	14,947(39.36%)
Very satisfied	11,261(29.66%)
<b>Health condition</b>	
Very poor	761(2.00%)
Poor	3,372(8.88%)

Average	14,712(38.75%)
Good	14,838(39.08%)
Very good	4,288(11.29%)
<b>Coverage of health expenses</b>	
Private insurance	6,242(16.44%)
Public insurance	14,924(39.30%)
No insurance	16,805(44.26%)
<b>Healthcare spending per capita (USD PPP)</b>	
Mean (SE)	519.10 (1.27%)
<b>Satisfaction with healthcare access</b>	
Not at all	5,107(13.45%)
Not satisfied	12,595(33.17%)
Rather satisfied	13,406(35.31%)
Very satisfied	6,863(18.07%)
<b>Contextual level characteristics</b>	
<b>Country</b>	
Argentina	2,304(6.07%)
Bolivia	2,222(5.85%)
Brazil	2,420(6.37%)
Colombia	2,363(6.22%)
Costa Rica	1,871(4.93%)
Chile	2,492(6.56%)
Ecuador	2,297(6.05%)
El Salvador	1,900(5.00%)
Guatemala	1,756(4.62%)
Honduras	1,687(4.44%)
Mexico	2,315(6.10%)
Nicaragua	1,837(4.84%)
Panama	1,863(4.91%)
Paraguay	2,021(5.32%)
Peru	2,235(5.89%)
Uruguay	2,397(6.31%)
Venezuela	2,213(5.83%)
Dominican Republic	1,778(4.68%)
<b>City/Town size</b>	
0-20000 (rural)	10,611(27.95%)
21000-100000 (peri-urban)	10,212 (26.89%)
100,000 + (large-urban)	10,182 (26.82%)
Capital (provincial capital)	6,966(18.35%)
<b>Home ownership</b>	
No	10,690(28.15%)
Yes	27,281(71.85%)
<b>Access to drinking water</b>	
No	4,858(12.79%)
Yes	33,113(87.21%)
<b>Access to sewage</b>	
No	13,004(34.25%)
Yes	24,967(65.75%)
<b>Has a TV</b>	
No	4,312(11.36%)
Yes	33,659(88.64%)

Source: Latinobarometro survey 2004, 2005, 2006, 2007

More than half of the Latin American women who make up the sample of study (56.62%) have insufficient income, while a very small percentage (7.42%) has enough income which allows them to save. Only 7.35% of the sample has completed university level studies and only one out of three have completed primary (34.49%) while only one out of four (25.88%) have completed secondary and the remaining 9.87% of the sample are illiterate. While 41.23% of these women are employed (self, public



or private) more than half of the sample are not employed (58.77%), as the largest percentage performs household chores (41.71%) and the rest are either students (6.74%), retired (5.65%) or unemployed (4.67%), making only one in every three women (31.24%) a chief income earner for their home. While socioeconomic levels are distributed accordingly, a larger number of women are in good or very good socio-economic status (38.90%) and two out of three women are generally satisfied with their life (69.02%). One in every two women in the sample have no health insurance (44.26%), while only one out of six (16.44%) have access to private health insurance, as the remaining women (39.30%) depend on public insurance schemes in their respective countries. Although most women (89.12%) rate their health condition as average, good and very good, approximately one in two women are not satisfied with their healthcare access in general (46.62%). The majority of the women interviewed were younger than 40 (59.78%), although a significant percentage were older (40.22%). In general, most of these women have access to drinking water (87.21%) and sewage (65.75%) although over half of these women (54.84%) live in the rural and peri-urban areas in their respective countries, while the remaining women live in large urban areas of their countries (including the provincial capitals).

#### b) Bi-variate associations

Bi-variate associations were performed and analyzed a priori, as these comparisons help in examining the basic distributions of the population within each healthcare satisfaction category. The results are presented in the table below.

**Exhibit 15: Bivariate associations for independent variables and satisfaction with access to healthcare for women in Latin America.**

Characteristics N=37,971 women	Satisfaction with healthcare access in women				P(Chi <sup>2</sup> )
	Not at all 5,107 (13.45%)	Not satisfied 12,595 (33.17%)	Rather satisfied 13,406 (35.31%)	Very satisfied 6,863 (18.03%)	
<b>Country*</b>					<0.001
Colombia (1)	2,363	236(9.99%)	683(28.90%)	869(36.78%)	575(24.33%)
Chile (2)	2,492	354(14.21%)	977(39.21%)	908(36.44%)	253(10.15%)
Costa Rica (3)	1,871	166(8.87%)	472(25.23%)	663(35.44%)	570(30.46%)
Dominican Republic (4)	1,778	168(9.45%)	483(27.17%)	646(36.33%)	481(27.05%)
Venezuela (5)	2,213	176(7.95%)	611(27.61%)	758(34.25%)	668(30.19%)
Paraguay (6)	2,021	348(17.22%)	635(31.42%)	705(34.88%)	333(16.48%)
Mexico (7)	2,315	339(14.64%)	681(29.42%)	898(38.79%)	397(17.15%)

Uruguay (8)	2,397	140(5.84%)	551(22.99%)	1,201(50.10%)	505(21.07%)
Nicaragua (9)	1,837	453(24.66%)	631(34.35%)	433(23.57%)	320(17.42%)
Argentina (10)	2,304	260(11.28%)	664(28.82%)	990(42.97%)	390(16.93%)
Guatemala (11)	1,756	249(14.18%)	654(37.24%)	581(33.09%)	272(15.49%)
Panama (12)	1,863	109(5.85%)	551(29.58%)	783(42.03%)	420(22.54%)
Ecuador (13)	2,297	350(15.24%)	1,005(43.75%)	750(32.65%)	192(8.36%)
El Salvador (14)	1,900	212(11.16%)	600(31.58%)	668(35.16%)	420(22.11%)
Brazil (15)	2,420	631(26.07%)	883(36.49%)	718(29.67%)	188(7.77%)
Bolivia (16)	2,222	287(12.92%)	893(40.19%)	833(37.49%)	209(9.41%)
Peru (17)	2,235	440(19.69%)	1,137(50.87%)	494(22.10%)	164(7.34%)
Honduras (18)	1,687	189(11.20%)	484(28.69%)	508(30.11%)	506(29.99%)
<b>Household income</b>					<0.001
Not sufficient, major problems	6,787	1,462(21.54%)	2,433(35.85%)	1,832(26.99%)	1,060(15.62%)
Not sufficient, have problems	14,713	2,076(14.11%)	5,438(36.96%)	4,955(33.68%)	2,244(15.25%)
Just sufficient, no major problems	13,652	1,325(9.71%)	4,034(29.55%)	5,549(40.65%)	2,744(20.10%)
Sufficient that you can save	2,819	244(8.66%)	690(24.48%)	1,070(37.96%)	815(28.91%)
<b>City/Town size</b>					<0.001
0-20000 (rural)	10,611	1,281(12.07%)	3,394(31.99%)	3,891(36.67%)	2,045(19.27%)
20001-100000 (peri-urban)	10,212	1,412(13.83%)	3,328(32.59%)	3,554(34.80%)	1,918(18.78%)
100,000 + (large-urban)	10,182	1,546(15.18%)	3,619(35.54%)	3,436(33.75%)	1,581(15.53%)
Capital (provincial capital)	6,966	868(12.46%)	2,254(32.36%)	2,525(36.25%)	1,319(18.93%)
<b>Year</b>					<0.001
2004	9,396	1,311(13.95%)	3,220(34.27%)	3,031(32.26%)	1,834(19.52%)
2005	9,608	1,153(12.00%)	3,472(36.14%)	3,224(33.56%)	1,759(18.31%)
2006	9,617	1,195(12.43%)	2,804(29.16%)	3,825(39.77%)	1,793(18.64%)
2007	9,350	1,448(15.49%)	3,099(33.14%)	3,326(35.57%)	1,477(15.80%)
<b>Age</b>					<0.001
18-25	9,294	1,122(12.07%)	3,041(32.72%)	3,381(36.38%)	1,750(18.83%)
26-40	13,404	1,813(13.53%)	4,560(34.02%)	4,607(34.37%)	2,424(18.08%)
41-60	10,449	1,471(14.08%)	3,500(33.50%)	3,661(35.04%)	1,817(17.39%)
61+	4,824	701(14.53%)	1,494(30.97%)	1,757(36.42%)	872(18.08%)
<b>Ethnicity (mother tongue)</b>					<0.001
Spanish	35,151	4,608(13.11%)	11,561(32.89%)	12,477(35.50%)	6,505(18.51%)
Indigenous	2,212	393(17.77%)	844(38.16%)	713(32.23%)	262(11.84%)
Other	608	106(17.43%)	190(31.25%)	216(35.53%)	96(15.79%)
<b>Marital status</b>					<0.001
Married or living w/partner	21,341	2,901(13.59%)	7,104(33.29%)	7,596(35.59%)	3,740(17.52%)
Never married	10,601	1,300(12.26%)	3,561(33.59%)	3,696(34.86%)	2,044(19.28%)
Separated/divorced/widower	6,020	906(15.03%)	1,930(32.01%)	2,114(35.06%)	1,079(17.90%)
<b>Education level</b>					<0.001
Illiterate	3,749	683(18.22%)	1,215(32.41%)	1,235(32.94%)	616(16.43%)
Incomplete primary	8,509	1,319(15.50%)	2,855(33.55%)	2,862(33.63%)	1,473(17.31%)
Complete primary	13,095	1,631(12.46%)	4,319(32.98%)	4,679(35.73%)	2,466(18.83%)
Complete secondary, technical	9,829	1,166(11.86%)	3,302(33.59%)	3,553(36.15%)	1,808(18.39%)
Complete university	2,789	308(11.04%)	904(32.41%)	1,077(38.62%)	500(17.93%)
<b>Employment</b>					<0.001
Self-employed	8,578	1,303(15.19%)	3,059(35.66%)	2,802(32.66%)	1,414(16.48%)
Salaried employee in public company	2,350	274(11.66%)	717(30.51%)	879(37.40%)	480(20.43%)
Salaried employee in private company	4,729	591(12.50%)	1,541(32.59%)	1,759(37.20%)	838(17.72%)
Unemployed	1,774	300(16.91%)	582(32.81%)	583(32.86%)	309(17.42%)
Retired	2,144	252(11.75%)	603(28.13%)	852(39.74%)	437(20.38%)
Don't work – responsible for housework	15,838	2,125(13.42%)	5,272(33.29%)	5,568(35.16%)	2,873(18.14%)
Student	2,558	262(10.24%)	821(32.10%)	963(37.65%)	512(20.02%)
<b>Chief income earner</b>					<0.001
No	26,109	3,393(13.00%)	8,733(33.45%)	9,338(35.77%)	4,645(17.79%)
Yes	11,862	1,714(14.45%)	3,862(32.56%)	4,068(34.29%)	2,218(18.70%)
<b>Socioeconomic level</b>					<0.001
Very bad	1,343	330(24.57%)	439(32.69%)	378(28.15%)	196(14.59%)
Bad	5,830	1,037(17.79%)	2,099(36.00%)	1,877(32.20%)	817(14.01%)
Average	16,028	2,121(13.23%)	5,570(34.75%)	5,609(35.00%)	2,728(17.02%)
Good	12,201	1,344(11.02%)	3,809(31.22%)	4,615(37.82%)	2,433(19.94%)
Very good	2,569	275(10.70%)	678(26.39%)	927(36.08%)	689(26.82%)
<b>Home ownership</b>					<0.001
No	10,690	1,545(14.45%)	3,550(33.21%)	3,705(34.66%)	1,890(17.68%)
Yes	27,281	3,562(13.06%)	9,045(33.15%)	9,701(35.56%)	4,973(18.23%)

<b>Access to drinking water</b>						<0.001
No	4,858	810(16.67%)	1,694(34.87%)	1,542(31.74%)	812(16.71%)	
Yes	33,113	4,297(12.98%)	10,901(32.92%)	11,864(35.83%)	6,051(18.27%)	
<b>Access to sewage</b>						<0.001
No	13,004	2,018(15.52%)	4,335(33.34%)	4,373(33.63%)	2,278(17.52%)	
Yes	24,967	3,089(12.37%)	8,260(33.08%)	9,033(36.18%)	4,585(18.36%)	
<b>Access to TV</b>						<0.001
No	4,312	829(19.23%)	1,505(34.90%)	1,296(30.06%)	682(15.82%)	
Yes	33,659	4,278(12.71%)	11,090(32.95%)	12,110(35.98%)	6,181(18.36%)	
<b>Satisfaction with life</b>						<0.001
Not at all satisfied	1,735	511(29.45%)	605(34.87%)	440(25.36%)	179(10.32%)	
Not very satisfied	10,028	1,799(17.94%)	4,155(41.43%)	2,964(29.56%)	1,110(11.07%)	
Fairly satisfied	14,947	1,701(11.38%)	4,806(32.15%)	6,086(40.72%)	2,354(15.75%)	
Very satisfied	11,261	1,096(9.73%)	3,029(26.90%)	3,916(34.77%)	3,220(28.59%)	
<b>Health condition</b>						<0.001
Very poor	761	199(26.15%)	263(34.56%)	193(25.36%)	106(13.93%)	
Poor	3,372	715(21.20%)	1,325(39.29%)	892(26.45%)	440(13.05%)	
Average	14,712	2,219(15.08%)	5,519(37.51%)	4,755(32.32%)	2,219(15.08%)	
Good	14,838	1,519(10.24%)	4,496(30.30%)	6,017(40.55%)	2,806(18.91%)	
Very good	4,288	455(10.61%)	992(23.13%)	1,549(36.12%)	1,292(30.13%)	
<b>Coverage of health expenses</b>						<0.001
Private insurance	6,242	550(8.81%)	1,641(26.29%)	2,600(41.65%)	1,451(23.25%)	
Public insurance	14,924	1,845(12.36%)	4,868(32.62%)	5,486(36.76%)	2,725(18.26%)	
No insurance	16,805	2,712(16.14%)	6,086(36.22%)	5,320(31.66%)	2,687(15.99%)	

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*Sorted by health system ranking within Latin America

The bi-variate associations show that women with greater income tend to be more satisfied with their healthcare access, although a large portion of women in these income categories are still not satisfied with their healthcare access: from 33.14% in the highest income category to 57.39% in the lowest income category. In addition, a majority of the women are not satisfied with their healthcare access regardless of the rural or urban location of their home, although those women living in the large urban areas of the country have the highest rate of dissatisfaction (50.72%) followed by those living in the peri-urban areas (46.42%), the capital (44.82%) and rural areas (44.06%).

Women who are illiterate tend to be less satisfied with their healthcare access (50.63%) when compared to women with some formal educational instruction, although one in every two women with some degree of formal education is not satisfied with their healthcare access in general. Whether women are employed or not, one in every two women are not satisfied with their healthcare access, although women working in the public sector tend to be more satisfied with their healthcare access when compared to the other employment categories. In addition, women who are more satisfied with life are generally more satisfied with their healthcare access, although those in poorer health condition

tend to be significantly less satisfied with their healthcare access (60.49%-60.71%) when compared to those who are in good to very good condition (59.46%-66.25%). Women with private insurance are more satisfied with their healthcare access (64.90%) when compared to those with public insurance (55.02%) or those with no insurance (47.65%).

In terms of countries we can see that there are varying degrees of satisfaction throughout the different countries while also taking into account their health system rankings. Although there is a decreasing tendency in satisfaction when taking the health system ranking into account we can see that the highest satisfaction (71.17%) is found in Uruguay (ranked 8) followed by Costa Rica with 65.90% (ranked 3) and by Panama with 64.75% (ranked 12), where two out of three women are generally satisfied with their healthcare access. Meanwhile we find the lowest satisfaction levels in Peru (ranked 17) where only 29.44% of the women are satisfied with their healthcare access, followed by Brazil (ranked 15) with 37.44% satisfaction and Nicaragua (ranked 9) with 40.99%, where only one out of three women are satisfied with their healthcare access. However we can note that Colombia (ranked 1), has a healthcare access satisfaction level of 61.11% while Honduras (ranked 18) follows very closely with a healthcare access satisfaction level of 60.10%. This clearly shows that although the World Health Organization ranking might show some correlations with healthcare satisfaction for women in the region, further analyses will be required to ascertain such correlations between health system ranking and healthcare access satisfaction for women in the Latin American region.

#### c) Fixed effects multiple regression model

As mentioned previously, while the variables included in the model are categorical or dichotomous, multiple linear regressions were applied as the statistical significance and relative magnitudes of the multiple linear regression models and the generalized ordered logit model proved comparable. In this regard, multiple linear regression models provide more interpretable results of the

magnitudes and effects which can later be compared through the various stratified models that will be analyzed. In the table below we can find the results of the initial fixed effects multiple linear regression model performed.

**Exhibit 16: Fixed effects multiple linear regression for satisfaction with access to healthcare for women in Latin America. \*\*\***

VARIABLES	N=37,971	Healthcare access satisfaction			
	$\beta$	SE	Confidence interval	p	
<b>Household income</b>					
Not sufficient, major problems	-0.35	0.02	(-0.39,-0.31)	0.00	
Not sufficient, have problems	-0.26	0.02	(-0.29,-0.22)	0.00	
Just sufficient, no major problems	-0.12	0.02	(-0.16,-0.08)	0.00	
Sufficient that you can save			Reference group		
<b>City/Town size</b>					
0-20000 (rural)	0.05	0.02	(0.02,0.08)	0.00	
20001-100000 (peri-urban)	0.02	0.01	(-0.01,0.05)	0.17	
100,000 + (large-urban)	-0.01	0.01	(-0.04,0.02)	0.49	
Capital (provincial capital)			Reference group		
<b>Year</b>					
2004			Reference group		
2005	-0.02	0.01	(-0.05,0.01)	0.16	
2006	0.00	0.02	(-0.04,0.03)	0.77	
2007	-0.13	0.02	(-0.17,-0.09)	0.00	
<b>Age</b>					
18-25			Reference group		
26-40	-0.02	0.01	(-0.05,0.00)	0.08	
41-60	0.00	0.02	(-0.03,0.03)	0.89	
61+	-0.01	0.02	(-0.05,0.03)	0.62	
<b>Marital status</b>					
Married or living w/partner	-0.01	0.01	(-0.03,0.02)	0.51	
Never married			Reference group		
Separated/divorced/widower	0.00	0.02	(-0.03,0.03)	0.99	
<b>Education level</b>					
Illiterate			Reference group		
Incomplete primary	0.01	0.02	(-0.02,0.05)	0.51	
Complete primary	0.00	0.02	(-0.04,0.03)	0.82	
Complete secondary, technical	-0.05	0.02	(-0.09,-0.01)	0.02	
Complete university	-0.11	0.03	(-0.16,-0.06)	0.00	
<b>Employment</b>					
Self-employed	-0.02	0.02	(-0.06,0.03)	0.45	
Salaried employee in public company			Reference group		
Salaried employee in private company	-0.05	0.02	(-0.09,0.00)	0.04	
Unemployed	-0.04	0.03	(-0.10,0.01)	0.14	
Retired	0.08	0.03	(0.02,0.14)	0.01	
Don't work – responsible for housework	0.03	0.02	(-0.01,0.07)	0.15	
Student	-0.02	0.03	(-0.08,0.03)	0.43	
<b>Chief income earner</b>					
Yes	-0.01	0.01	(-0.04,0.01)	0.38	
<b>Socioeconomic level</b>					
Very bad	-0.05	0.03	(-0.10,0.00)	0.05	
Bad	-0.03	0.01	(-0.05,0.00)	0.06	
Average			Reference group		
Good	0.00	0.01	(-0.02,0.02)	0.86	
Very good	0.03	0.02	(-0.01,0.07)	0.15	
<b>Home characteristics</b>					
Home ownership	-0.01	0.01	(-0.03,0.01)	0.33	
Access to drinking water	0.05	0.01	(0.02,0.08)	0.00	
Sewage	0.01	0.01	(-0.01,0.04)	0.23	
TV ownership	-0.02	0.02	(-0.05,0.01)	0.22	
<b>Satisfaction with life</b>					
Not at all satisfied	-0.40	0.02	(-0.45,-0.35)	0.00	

Not very satisfied	-0.28	0.01	(-0.30,-0.25)	0.00
Fairly satisfied	-0.12	0.01	(-0.14,-0.10)	0.00
Very satisfied			Reference group	
<b>Health condition</b>				
Very poor	-0.36	0.04	(-0.43,-0.29)	0.00
Poor	-0.32	0.02	(-0.36,-0.28)	0.00
Average	-0.21	0.02	(-0.25,-0.18)	0.00
Good	-0.10	0.02	(-0.13,-0.07)	0.00
Very good			Reference group	
<b>Coverage of health expenses</b>				
Private insurance	0.19	0.02	(0.16,0.22)	0.00
Public insurance	0.11	0.01	(0.08,0.13)	0.00
No insurance			Reference group	
<b>Healthcare spending per capita</b>				
Healthcare spending per capita scaled(100 USD PPP)	0.03	0.01	(0.00,0.05)	0.04

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\* $R^2$  within= 0.0650 /  $R^2$  between=.2886 /  $R^2$  overall=0.0778 /  $Rho$  =0.05 (fraction of variance due to  $u_i$ )

\*\*Post-estimation tests and Wald test confirm joint significance for all categories and correct for others accordingly.

Latin American women with lower incomes are 0.26 to 0.35 points less satisfied with their healthcare access after adjusting for other factors in the model (SE 0.02,  $p < 0.00$ ), while those women living in the rural areas are 0.05 points more satisfied with their healthcare access (SE 0.01,  $p < 0.00$ ) and those women who have access to drinking water are 0.05 points more satisfied with their healthcare access (SE 0.01,  $p < 0.00$ ). As women get older they are just as satisfied with their healthcare access, although significance levels are not important, while women who have completed secondary school and university are 0.05 to 0.11 points less satisfied with their healthcare access (SE 0.02-0.03,  $p < 0.02$ ,  $p < 0.00$ ). In addition, women who are employed in a private company are 0.05 points less satisfied with their healthcare access after adjusting for other factors in the model (SE 0.02,  $p < 0.05$ ), while those women who are retired are 0.08 points more satisfied with their healthcare access (SE 0.03,  $p < 0.01$ ) and women responsible for housework are 0.03 points more satisfied with their healthcare access (SE 0.02,  $p = 0.15$ ).

Women who are not satisfied with their life are 0.28 to 0.40 points less satisfied with their healthcare access after adjusting for other factors in the model (SE 0.01-0.02,  $p < 0.00$ ). As women's health status is worse they are 0.32 to 0.36 points less satisfied with their healthcare access (SE 0.02-0.04,  $p < 0.00$ ). Women with private health insurance are 0.19 points more satisfied with their healthcare access (SE 0.02,  $p < 0.00$ ), while those with public insurance are 0.11 points more satisfied with their

healthcare access (SE 0.01,  $p < 0.00$ ) when compared to those with no insurance, after adjusting for other factors in the model. An increase in health spending per capita (in 100 USD PPP) increases healthcare access satisfaction for Latin American women by 0.03 points (SE 0.01,  $p < 0.05$ )

In addition, an understanding of the predicted country fixed effects will provide a better idea on country to country variations in healthcare access satisfaction for women. These variations could be due to a number of underlying factors that are not explicitly included in the model but are included implicitly by applying a multiple linear fixed effect regression model. In other words, these would be the country specific average variations in healthcare access satisfaction for women living in the region after having controlled all other variables in the model, which when added or subtracted from the constant provide with the country specific intercept.

**Exhibit 17: Country specific average variation for satisfaction with access to healthcare for women in Latin America, after adjusting for all variables in the model.**

Country	Fixed effect (summary of $\mu$ )
Argentina	-0.09
Bolivia	0.06
Brazil	-0.49
Colombia	0.13
Costa Rica	0.08
Chile	-0.25
Ecuador	-0.06
El Salvador	0.20
Guatemala	-0.01
Honduras	0.28
Mexico	-0.13
Nicaragua	-0.03
Panama	0.12
Paraguay	0.01
Peru	-0.19
Uruguay	0.11
Venezuela	0.19
Dominican Republic	0.32

By analyzing the country to country variations in women’s average healthcare access satisfaction we obtain a better standing of the country characteristics in the region. In this regard, we can see that the range of variation for healthcare access satisfaction for the region is about 0.80 points, falling between the lowest end of -0.49 points for Brazil and highest end of 0.32 points for Dominican Republic. In other words, after controlling for all the variables in the model, healthcare access is 0.49 lower in average for women in Brazil, while it is 0.32 points higher in average for women in Dominican Republic.

A number of countries like Bolivia, Costa Rica, Argentina, Guatemala, Ecuador, Nicaragua and Paraguay are generally within the mean range for country specific average variation, while a number of countries like Chile, Mexico and Peru show significantly lower satisfaction levels in average, while El Salvador, Honduras, Panama, Uruguay and Venezuela show significantly higher satisfaction levels in average, after adjusting for all the other variables in the model.

d) Multiple linear regression model with country cluster correction

While the fixed effects multiple linear regression model provides consistent and efficient results, it does not allow for the inclusion of the Latin American health system ranking due to collinearity issues throughout the different years under analysis. In this regard, applying a multiple linear regression with country cluster correction will allow for a comparison of the models, while adjusting for the health system ranking for the region. The table below presents the results.

**Exhibit 18: Multiple linear regression with cluster correction by country for satisfaction with access to healthcare for women Latin America. \*\*\***

VARIABLES	N=37,971 women		Healthcare access satisfaction		
Household income	$\beta$	RSE	Confidence interval	p	
Not sufficient, major problems	-0.32	0.04	(-0.39,-0.24)	0.00	
Not sufficient, have problems	-0.24	0.03	(-0.31,-0.17)	0.00	
Just sufficient, no major problems	-0.12	0.03	(-0.18,-0.05)	0.00	
Sufficient that you can save			Reference group		
<b>City/Town size</b>					
0-20000 (rural)	0.09	0.04	(0.01,0.16)	0.04	
20001-100000 (peri-urban)	0.02	0.04	(-0.07,0.10)	0.71	
100,000 + (large-urban)	-0.05	0.05	(-0.16,0.05)	0.31	
Capital (provincial capital)			Reference group		
<b>Year</b>					
2004			Reference group		
2005	-0.02	0.04	(-0.10,0.07)	0.66	
2006	0.01	0.05	(-0.08,0.11)	0.79	
2007	-0.10	0.05	(-0.20,0.01)	0.06	
<b>Age</b>					
18-25			Reference group		
26-40	-0.01	0.01	(-0.04,0.02)	0.58	
41-60	0.02	0.02	(-0.03,0.06)	0.47	
61+	0.01	0.04	(-0.08,0.10)	0.81	
<b>Marital status</b>					
Married or living w/partner	-0.02	0.02	(-0.06,0.01)	0.22	
Never married			Reference group		
Separated/divorced/widower	-0.01	0.02	(-0.05,0.03)	0.66	
<b>Education level</b>					
Illiterate			Reference group		
Incomplete primary	-0.02	0.03	(-0.09,0.05)	0.53	
Complete primary	0.01	0.04	(-0.08,0.09)	0.90	
Complete secondary, technical	-0.07	0.04	(-0.16,0.03)	0.15	
Complete university	-0.12	0.06	(-0.24,0.00)	0.04	



<b>Employment</b>				
Self-employed	-0.05	0.03	(-0.11,0.02)	0.16
Salaried employee in public company			Reference group	
Salaried employee in private company	-0.06	0.03	(-0.12,0.01)	0.10
Unemployed	-0.04	0.04	(-0.12,0.04)	0.30
Retired	0.08	0.05	(-0.03,0.19)	0.13
Don't work – responsible for housework	0.04	0.03	(-0.03,0.11)	0.26
Student	-0.01	0.02	(-0.06,0.04)	0.68
<b>Chief income earner</b>				
Yes	0.03	0.02	(-0.01,0.06)	0.10
<b>Socioeconomic level</b>				
Very bad	-0.08	0.03	(-0.14,-0.01)	0.03
Bad	-0.05	0.02	(-0.09,-0.01)	0.01
Average			Reference group	
Good	0.02	0.03	(-0.04,0.08)	0.50
Very good	0.06	0.04	(-0.02,0.14)	0.15
<b>Home characteristics</b>				
Home ownership	-0.03	0.01	(-0.06,0.00)	0.03
Access to drinking water	0.03	0.04	(-0.04,0.11)	0.37
Sewage	0.00	0.03	(-0.07,0.07)	0.98
TV ownership	-0.01	0.03	(-0.06,0.05)	0.85
<b>Satisfaction with life</b>				
Not at all satisfied	-0.47	0.05	(-0.57,-0.37)	0.00
Not very satisfied	-0.35	0.03	(-0.41,-0.29)	0.00
Fairly satisfied	-0.18	0.02	(-0.23,-0.13)	0.00
Very satisfied			Reference group	
<b>Health condition</b>				
Very poor	-0.39	0.06	(-0.51,-0.27)	0.00
Poor	-0.34	0.03	(-0.41,-0.27)	0.00
Average	-0.24	0.02	(-0.29,-0.19)	0.00
Good	-0.11	0.02	(-0.14,-0.07)	0.00
Very good			Reference group	
<b>Coverage of health expenses</b>				
Private insurance	0.17	0.06	(0.05,0.30)	0.01
Public insurance	0.06	0.04	(-0.03,0.15)	0.16
No insurance			Reference group	
<b>Healthcare spending per capita</b>				
Healthcare spending per capita scaled(100 USD PPP)	0.00	0.01	(-0.03,0.03)	0.87
<b>Health system ranking</b>				
Latin American Health system ranking	-0.01	0.01	(-0.03,0.01)	0.19

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*R<sup>2</sup>= 0.0913 / Adjusted for 18 clusters /

\*\*Post-estimation tests and Wald test confirm joint significance for all categories and correct for others accordingly.

Latin American women with lower incomes are 0.24 to 0.32 points less satisfied with their healthcare access after adjusting for other factors in the model (RSE 0.03-0.04, p<0.00), while those women living in the rural are 0.09 points more satisfied with their healthcare access (RSE 0.04, p<0.05) while those women who own their homes are 0.03 points less satisfied with their healthcare access (RSE 0.01, p<0.05). As women get older they are just as satisfied with their healthcare access, although significance levels are not important, while women who have completed secondary school and university are 0.07 to 0.12 points less satisfied with their healthcare access (RSE 0.04-0.06, p<0.15, p<0.05). In addition, women who are employed in a private company are 0.06 points less satisfied with

their healthcare access after adjusting for other factors in the model (RSE 0.03,  $p < 0.10$ ), while those who are retired are 0.08 points more satisfied with their healthcare access (RSE 0.05,  $p < 0.13$ ) and those women responsible for the housework are 0.04 points more satisfied with their healthcare access (RSE 0.02,  $p = 0.26$ ).

Women who are not satisfied with their life are 0.35 to 0.47 points less satisfied with their healthcare access after adjusting for other factors in the model (RSE 0.03-0.05,  $p < 0.00$ ). As women's health status worsens they are 0.34 to 0.39 points less satisfied with their healthcare access (RSE 0.03-0.06,  $p < 0.00$ ), although women in average and good health are 0.11 to 0.24 points less satisfied with their healthcare access (RSE 0.02,  $p < 0.00$ ), after adjusting for other factors in the model, when compared to those women in very good health.. Women with private health insurance are 0.17 points more satisfied with their healthcare access (RSE 0.06,  $p < 0.01$ ), while those with public insurance are 0.06 points more satisfied with their healthcare access (RSE 0.04,  $p = 0.16$ ) when compared to those with no insurance, after adjusting for other factors in the model. An increase in health spending per capita (in 100 USD PPP) does not significantly increase healthcare access satisfaction for Latin American women, while health system ranking has no significant effect on healthcare access satisfaction for Latin American women.

#### e) Individual country analyses

As results from the fixed effects and country cluster correction linear models are comparable, country individual analyses were performed to confirm the results and isolate any additional effects that might prove consistent while also being efficient. These analyses treat satisfaction to healthcare access as continuous allowing for ease of interpretation and comparison of magnitudes and effects. However it should be noted that due to the smaller sample sizes of the strata significance levels might not always help in corroborating the results throughout.

**Exhibit 19: Multiple linear regression for individual countries (ordered by health system ranking) for satisfaction with access to healthcare for women in the Latin America.**

VARIABLES	Colombia (1) N=2363			Chile (2) N=2492			Costa Rica (3) N=1871			Dominican Republic (4) N=1778			Venezuela (5) N=2213			Paraguay (6) N=2021		
	β	SE	p	β	SE	P	β	SE	p	β	SE	p	β	SE	P	β	SE	p
<b>Household income</b>																		
Not sufficient, major problems	-0.27	0.09	0.01	-0.57	0.09	0.00	-0.17	0.10	0.08	-0.53	0.10	0.00	-0.49	0.09	0.00	-0.61	0.12	0.00
Not sufficient, have problems	-0.28	0.09	0.00	-0.39	0.08	0.00	-0.08	0.08	0.31	-0.45	0.09	0.00	-0.40	0.08	0.00	-0.39	0.09	0.00
Just sufficient, no major problems	-0.12	0.09	0.16	-0.16	0.08	0.04	-0.09	0.07	0.22	-0.24	0.09	0.01	-0.25	0.07	0.00	-0.28	0.09	0.00
Sufficient that you can save	Reference group																	
<b>City/Town size</b>																		
0-20000 (rural)	-0.13	0.06	0.02	0.06	0.06	0.33	-0.12	0.11	0.27	-0.08	0.07	0.25	0.02	0.09	0.79	0.08	0.08	0.32
20001-100000 (peri-urban)	0.03	0.05	0.52	0.11	0.05	0.03	-0.17	0.11	0.12	-0.06	0.06	0.34	0.01	0.08	0.88	-0.08	0.08	0.33
100,000 + (large-urban)	-0.03	0.05	0.58	0.09	0.04	0.02	(dropped)			-0.10	0.06	0.10	0.00	0.08	0.97	-0.01	0.08	0.90
Capital (provincial capital)	Reference group																	
<b>Age</b>																		
18-25	Reference group																	
26-40	-0.04	0.05	0.43	0.06	0.06	0.33	-0.03	0.06	0.69	0.03	0.06	0.64	0.03	0.06	0.60	0.01	0.06	0.87
41-60	-0.05	0.06	0.40	0.07	0.07	0.28	0.10	0.07	0.19	0.02	0.07	0.77	0.07	0.07	0.31	0.00	0.07	0.95
61+	-0.01	0.10	0.92	0.04	0.08	0.60	0.12	0.10	0.22	0.01	0.10	0.91	-0.01	0.09	0.93	-0.03	0.09	0.72
<b>Marital status</b>																		
Married or living w/partner	0.02	0.05	0.63	-0.11	0.05	0.02	-0.01	0.06	0.83	0.12	0.05	0.03	-0.15	0.05	0.00	-0.01	0.06	0.86
Never married	Reference group																	
Separated/divorced/widower	-0.01	0.07	0.89	-0.05	0.06	0.45	0.03	0.08	0.69	0.01	0.07	0.94	-0.07	0.06	0.23	0.05	0.08	0.53
<b>Education level</b>																		
Illiterate	Reference group																	
Incomplete primary	-0.04	0.11	0.74	-0.20	0.11	0.08	0.41	0.10	0.00	-0.09	0.07	0.19	-0.08	0.10	0.40	0.03	0.12	0.80
Complete primary	-0.07	0.11	0.56	-0.27	0.11	0.02	0.43	0.10	0.00	0.03	0.07	0.73	-0.21	0.11	0.06	-0.03	0.13	0.83
Complete secondary, technical	-0.18	0.12	0.13	-0.23	0.12	0.05	0.37	0.11	0.00	0.09	0.08	0.26	-0.10	0.10	0.32	-0.16	0.13	0.24
Complete university	-0.28	0.13	0.03	-0.27	0.13	0.03	0.30	0.14	0.04	-0.05	0.15	0.77	-0.31	0.12	0.01	-0.11	0.16	0.46
<b>Employment</b>																		
Self-employed	0.19	0.09	0.04	-0.12	0.09	0.18	0.13	0.12	0.29	-0.11	0.10	0.26	-0.10	0.08	0.17	0.14	0.10	0.17
Salaried employee in public company	Reference group																	
Salaried employee in private company	0.11	0.10	0.27	-0.20	0.09	0.02	0.03	0.12	0.83	-0.07	0.10	0.48	-0.19	0.09	0.03	0.18	0.11	0.11
Unemployed	0.17	0.11	0.12	-0.08	0.11	0.49	-0.04	0.14	0.79	0.02	0.12	0.88	-0.13	0.12	0.31	0.25	0.14	0.06
Retired	0.10	0.16	0.54	-0.11	0.10	0.29	0.22	0.14	0.13	-0.18	0.18	0.31	-0.05	0.12	0.70	0.43	0.14	0.00
Don't work – responsible for housework	0.24	0.09	0.01	-0.06	0.09	0.46	0.23	0.11	0.04	-0.12	0.10	0.21	-0.02	0.08	0.76	0.23	0.10	0.03
Student	0.09	0.12	0.44	-0.09	0.11	0.44	0.15	0.15	0.30	-0.08	0.13	0.54	-0.02	0.10	0.84	0.12	0.13	0.34
<b>Chief income earner</b>																		
Yes	0.02	0.05	0.68	0.06	0.05	0.27	0.08	0.06	0.18	0.07	0.05	0.21	0.04	0.05	0.40	-0.03	0.06	0.63
<b>Socioeconomic level</b>																		
Very bad	-0.13	0.12	0.28	0.10	0.14	0.48	-0.09	0.16	0.57	-0.03	0.11	0.77	0.10	0.19	0.61	0.07	0.14	0.62
Bad	-0.06	0.07	0.36	-0.02	0.05	0.60	-0.04	0.08	0.64	-0.03	0.06	0.63	0.07	0.07	0.34	0.07	0.06	0.26
Average	Reference group																	

Good	-0.02	0.05	0.67	0.07	0.04	0.07	0.03	0.05	0.50	-0.02	0.05	0.78	-0.03	0.05	0.50	-0.08	0.05	0.13
Very good	-0.06	0.07	0.42	0.23	0.10	0.02	0.02	0.08	0.81	0.05	0.09	0.57	0.02	0.08	0.81	-0.11	0.11	0.29
<b>Home characteristics</b>																		
Home ownership	-0.05	0.04	0.17	-0.03	0.04	0.39	0.07	0.05	0.18	0.08	0.05	0.10	0.05	0.05	0.27	-0.06	0.05	0.27
Drinking water	-0.03	0.06	0.69	-0.16	0.12	0.18	0.16	0.10	0.12	-0.02	0.06	0.77	0.01	0.06	0.86	0.17	0.05	0.00
Sewage	-0.10	0.06	0.09	-0.01	0.08	0.94	0.07	0.06	0.24	-0.06	0.05	0.18	0.05	0.06	0.42	0.10	0.06	0.12
TV ownership	-0.07	0.07	0.31	0.24	0.12	0.06	-0.12	0.11	0.27	0.11	0.08	0.15	-0.04	0.10	0.73	0.10	0.07	0.14
<b>Satisfaction with life</b>																		
Not at all satisfied	-0.31	0.13	0.02	-0.35	0.10	0.00	-0.52	0.16	0.00	-0.63	0.12	0.00	-0.32	0.13	0.02	-0.46	0.09	0.00
Not very satisfied	-0.16	0.05	0.00	-0.30	0.05	0.00	-0.25	0.07	0.00	-0.32	0.06	0.00	-0.28	0.06	0.00	-0.39	0.06	0.00
Fairly satisfied	-0.07	0.04	0.08	-0.12	0.05	0.01	-0.17	0.05	0.00	-0.20	0.05	0.00	-0.05	0.05	0.29	-0.17	0.05	0.00
Very satisfied	Reference group																	
<b>Health Condition</b>																		
Very poor	-0.67	0.16	0.00	-0.19	0.13	0.15	-0.21	0.14	0.11	-0.18	0.14	0.20	-0.65	0.25	0.01	-0.53	0.22	0.01
Poor	-0.54	0.10	0.00	-0.23	0.08	0.01	-0.22	0.10	0.02	-0.26	0.10	0.01	-0.37	0.11	0.00	-0.43	0.09	0.00
Average	-0.34	0.06	0.00	-0.19	0.07	0.01	-0.17	0.06	0.01	-0.01	0.08	0.87	-0.17	0.06	0.00	-0.27	0.06	0.00
Good	-0.14	0.06	0.02	-0.10	0.07	0.13	-0.01	0.06	0.82	0.04	0.08	0.58	-0.11	0.05	0.04	-0.17	0.06	0.00
Very good	Reference group																	
<b>Coverage of health expenses</b>																		
Private insurance	0.59	0.07	0.00	0.38	0.07	0.00	0.07	0.11	0.56	0.14	0.06	0.02	-0.09	0.06	0.15	0.35	0.07	0.00
Public insurance	0.39	0.06	0.00	0.25	0.05	0.00	0.13	0.06	0.04	0.09	0.06	0.16	-0.03	0.05	0.46	0.08	0.06	0.20
No Insurance	Reference group																	
<b>Healthcare spending per capita</b>																		
HSPC scaled (100 USD-PPP)	0.07	0.06	0.24	-0.05	0.03	0.08	-0.06	0.02	0.00	-0.02	0.05	0.68	0.01	0.03	0.77	-1.45	0.26	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

**Exhibit 19 (continued): Multiple linear regression for individual countries (ordered by health system ranking) for satisfaction with access to healthcare for women in the Latin America.**

VARIABLES	Mexico(7) N=2315			Uruguay (8) N=2397			Nicaragua (9) N=1837			Argentina (10) N=2304			Guatemala (11) N=1756			Panama (12) N=1863		
	$\beta$	SE	p	$\beta$	SE	P	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	P	$\beta$	SE	p
<b>Household income</b>																		
Not sufficient, major problems	-0.32	0.09	0.00	-0.29	0.09	0.00	-0.46	0.13	0.00	-0.42	0.10	0.00	-0.14	0.09	0.13	-0.25	0.08	0.00
Not sufficient, have problems	-0.16	0.07	0.02	-0.22	0.08	0.01	-0.36	0.12	0.00	-0.39	0.08	0.00	-0.03	0.08	0.71	-0.19	0.07	0.01
Just sufficient, no major problems	-0.02	0.06	0.73	-0.09	0.08	0.30	-0.25	0.12	0.05	-0.21	0.08	0.01	0.03	0.08	0.74	-0.14	0.07	0.04
Sufficient that you can save	Reference group																	
<b>City/Town size</b>																		
0-20000 (rural)	0.01	0.07	0.92	0.19	0.04	0.00	0.10	0.10	0.30	0.13	0.08	0.10	0.01	0.09	0.90	0.04	0.06	0.52
20001-100000 (peri-urban)	0.05	0.08	0.52	0.13	0.04	0.00	0.05	0.07	0.45	0.14	0.08	0.07	-0.02	0.08	0.81	0.04	0.06	0.56
100,000 + (large-urban)	-0.03	0.06	0.69	(dropped)			0.16	0.08	0.06	0.00	0.07	0.98	-0.10	0.09	0.26	0.39	0.16	0.02
Capital (provincial capital)	Reference group																	
<b>Age</b>																		
18-25	Reference group																	
26-40	-0.05	0.06	0.40	0.02	0.06	0.79	-0.07	0.06	0.26	0.06	0.06	0.30	-0.15	0.06	0.01	-0.02	0.06	0.75
41-60	-0.06	0.07	0.33	0.09	0.06	0.14	-0.16	0.07	0.03	0.05	0.07	0.46	0.03	0.07	0.65	0.03	0.07	0.61
61+	0.02	0.08	0.85	0.15	0.08	0.05	-0.17	0.11	0.11	0.13	0.08	0.12	-0.11	0.10	0.27	0.08	0.09	0.38
<b>Marital status</b>																		

Married or living w/partner	-0.09	0.05	0.11	0.00	0.05	0.93	-0.12	0.06	0.04	-0.03	0.06	0.63	0.04	0.06	0.50	-0.02	0.05	0.67
Never married	Reference group																	
Separated/divorced/widower	-0.01	0.07	0.95	0.04	0.06	0.45	-0.09	0.09	0.32	-0.19	0.07	0.01	0.05	0.08	0.52	-0.10	0.07	0.17
<b>Education level</b>																		
Illiterate	Reference group																	
Incomplete primary	-0.13	0.08	0.10	-0.09	0.15	0.57	-0.07	0.07	0.34	-0.39	0.24	0.10	0.03	0.05	0.56	-0.01	0.10	0.92
Complete primary	-0.18	0.07	0.01	-0.20	0.14	0.18	-0.03	0.07	0.72	-0.34	0.23	0.15	0.04	0.06	0.46	0.10	0.09	0.24
Complete secondary, technical	-0.27	0.08	0.00	-0.17	0.15	0.25	-0.26	0.11	0.02	-0.34	0.24	0.15	0.02	0.10	0.83	-0.02	0.09	0.80
Complete university	-0.28	0.10	0.01	-0.19	0.15	0.21	-0.28	0.16	0.08	-0.34	0.24	0.16	0.23	0.25	0.36	-0.09	0.11	0.42
<b>Employment</b>																		
Self-employed	-0.01	0.08	0.86	0.07	0.08	0.35	0.02	0.13	0.86	-0.09	0.08	0.22	-0.03	0.10	0.79	-0.03	0.10	0.74
Salaried employee in public company	Reference group																	
Salaried employee in private company	-0.14	0.08	0.08	0.02	0.07	0.79	0.06	0.14	0.65	0.01	0.08	0.90	-0.09	0.11	0.41	0.06	0.09	0.55
Unemployed	-0.08	0.13	0.53	0.06	0.09	0.53	-0.18	0.17	0.29	-0.02	0.11	0.82	0.08	0.15	0.59	-0.14	0.11	0.20
Retired	-0.18	0.13	0.18	0.12	0.08	0.14	0.16	0.24	0.50	-0.01	0.09	0.92	0.36	0.20	0.07	-0.06	0.11	0.58
Don't work – responsible for housework	-0.01	0.08	0.87	0.09	0.08	0.23	0.07	0.13	0.60	-0.02	0.07	0.79	0.04	0.10	0.73	0.04	0.09	0.68
Student	-0.09	0.11	0.44	0.12	0.11	0.25	0.04	0.15	0.78	-0.03	0.10	0.79	-0.14	0.15	0.36	-0.03	0.11	0.81
<b>Chief income earner</b>																		
Yes	0.02	0.05	0.70	-0.05	0.04	0.26	-0.11	0.07	0.11	0.03	0.05	0.54	-0.10	0.06	0.07	-0.04	0.05	0.48
<b>Socioeconomic level</b>																		
Very bad	-0.08	0.10	0.44	-0.16	0.12	0.18	-0.12	0.09	0.18	0.05	0.13	0.71	-0.37	0.12	0.00	-0.20	0.15	0.18
Bad	-0.01	0.05	0.86	0.01	0.06	0.82	-0.04	0.06	0.55	-0.04	0.07	0.59	-0.18	0.07	0.01	-0.04	0.08	0.58
Average	Reference group																	
Good	0.03	0.05	0.56	-0.06	0.04	0.09	-0.06	0.07	0.39	-0.07	0.04	0.11	-0.10	0.05	0.05	0.01	0.05	0.74
Very good	0.09	0.10	0.40	0.03	0.08	0.70	-0.01	0.13	0.92	-0.03	0.07	0.66	-0.19	0.09	0.04	0.12	0.08	0.11
<b>Home characteristics</b>																		
Home ownership	0.04	0.05	0.34	-0.04	0.04	0.30	0.09	0.06	0.12	0.02	0.04	0.73	-0.02	0.05	0.74	0.00	0.05	0.98
Drinking water	-0.01	0.08	0.87	0.01	0.06	0.83	-0.04	0.06	0.57	0.18	0.08	0.02	0.03	0.07	0.61	0.20	0.07	0.01
Sewage	0.05	0.06	0.43	0.01	0.04	0.89	0.08	0.06	0.22	0.07	0.04	0.11	-0.04	0.05	0.44	0.01	0.04	0.84
TV ownership	-0.09	0.09	0.32	-0.11	0.08	0.15	-0.03	0.06	0.61	0.01	0.12	0.94	-0.04	0.06	0.49	0.07	0.07	0.29
<b>Satisfaction with life</b>																		
Not at all satisfied	-0.44	0.10	0.00	-0.31	0.08	0.00	-0.38	0.10	0.00	-0.33	0.10	0.00	-0.05	0.14	0.69	-0.37	0.18	0.04
Not very satisfied	-0.23	0.05	0.00	-0.25	0.05	0.00	-0.28	0.06	0.00	-0.29	0.06	0.00	-0.09	0.06	0.14	-0.24	0.06	0.00
Fairly satisfied	-0.12	0.05	0.01	-0.11	0.04	0.02	-0.13	0.06	0.02	-0.09	0.05	0.05	-0.13	0.05	0.01	-0.15	0.04	0.00
Very satisfied	Reference group																	
<b>Health Condition</b>																		
Very poor	0.04	0.17	0.84	-0.20	0.17	0.22	-0.31	0.13	0.02	-0.25	0.20	0.22	-0.66	0.17	0.00	-0.43	0.21	0.04
Poor	-0.28	0.10	0.01	-0.28	0.09	0.00	-0.21	0.10	0.04	-0.29	0.10	0.00	-0.56	0.11	0.00	-0.29	0.10	0.00
Average	-0.11	0.07	0.11	-0.27	0.06	0.00	-0.13	0.09	0.18	-0.25	0.06	0.00	-0.35	0.09	0.00	-0.35	0.07	0.00
Good	0.00	0.07	0.96	-0.19	0.05	0.00	-0.03	0.10	0.78	-0.12	0.05	0.02	-0.22	0.09	0.01	-0.22	0.07	0.00
Very good	Reference group																	
<b>Coverage of health expenses</b>																		
Private insurance	-0.07	0.06	0.29	0.49	0.09	0.00	0.24	0.10	0.01	0.20	0.05	0.00	0.06	0.09	0.53	0.12	0.09	0.18
Public insurance	0.13	0.05	0.01	0.36	0.08	0.00	0.16	0.06	0.01	0.12	0.05	0.01	0.08	0.05	0.14	0.02	0.05	0.60

No Insurance	Reference group																	
<b>Healthcare spending per capita</b>																		
HSPC scaled (100 USD-PPP)	0.17	0.05	0.00	0.02	0.03	0.50	0.30	0.10	0.00	-0.03	0.02	0.13	-0.43	0.10	0.00	-0.12	0.06	0.07
Source: Latinobarometro survey 2004, 2005, 2006, 2007																		

**Exhibit 19 (continued): Multiple linear regression for individual countries (ordered by health system ranking) for satisfaction with access to healthcare for women in the Latin America.**

VARIABLES	Ecuador (13) N=2297			El Salvador (14) N=1900			Brazil (15) N=2420			Bolivia (16) N=2222			Peru (17) N=2235			Honduras (18) N=1687		
	$\beta$	SE	p	$\beta$	SE	P	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	P	$\beta$	SE	p
<b>Household income</b>	Reference group																	
Not sufficient, major problems	-0.40	0.10	0.00	-0.54	0.11	0.00	-0.38	0.07	0.00	-0.28	0.08	0.00	-0.38	0.09	0.00	-0.14	0.10	0.17
Not sufficient, have problems	-0.28	0.09	0.00	-0.44	0.11	0.00	-0.25	0.06	0.00	-0.15	0.07	0.04	-0.29	0.08	0.00	-0.10	0.09	0.27
Just sufficient, no major problems	-0.08	0.09	0.42	-0.28	0.11	0.01	-0.08	0.06	0.16	-0.06	0.07	0.41	-0.25	0.08	0.00	0.03	0.09	0.76
Sufficient that you can save	Reference group																	
<b>City/Town size</b>	Reference group																	
0-20000 (rural)	-0.03	0.06	0.67	0.06	0.11	0.59	0.16	0.05	0.00	0.26	0.07	0.00	-0.04	0.05	0.48	0.08	0.10	0.40
20001-100000 (peri-urban)	-0.08	0.06	0.19	-0.01	0.11	0.90	(dropped)			0.26	0.07	0.00	-0.17	0.05	0.00	0.13	0.09	0.16
100,000 + (large-urban)	-0.12	0.06	0.04	0.00	0.11	0.97	-0.09	0.04	0.02	0.23	0.06	0.00	-0.01	0.05	0.91	-0.04	0.09	0.63
Capital (provincial capital)	Reference group																	
<b>Age</b>	Reference group																	
18-25	Reference group																	
26-40	0.00	0.05	0.96	0.01	0.06	0.87	-0.04	0.05	0.46	-0.04	0.05	0.45	-0.08	0.05	0.09	-0.07	0.06	0.24
41-60	0.07	0.05	0.22	0.00	0.07	0.97	0.05	0.06	0.41	-0.06	0.06	0.29	-0.05	0.06	0.35	-0.10	0.07	0.19
61+	-0.02	0.07	0.76	0.03	0.09	0.76	0.16	0.09	0.08	-0.09	0.08	0.23	-0.13	0.08	0.10	-0.23	0.10	0.02
<b>Marital status</b>	Reference group																	
Married or living w/partner	-0.01	0.05	0.90	0.08	0.05	0.12	-0.07	0.05	0.14	0.04	0.05	0.43	0.03	0.05	0.56	0.05	0.06	0.36
Never married	Reference group																	
Separated/divorced/widower	-0.08	0.06	0.21	0.09	0.08	0.29	-0.04	0.07	0.55	0.07	0.07	0.36	0.03	0.07	0.65	0.08	0.08	0.35
<b>Education level</b>	Reference group																	
Illiterate	Reference group																	
Incomplete primary	0.05	0.08	0.56	0.02	0.07	0.78	-0.04	0.08	0.59	0.11	0.06	0.05	0.10	0.07	0.17	-0.02	0.08	0.75
Complete primary	0.10	0.07	0.18	-0.05	0.07	0.45	-0.15	0.09	0.11	0.21	0.07	0.00	-0.05	0.07	0.46	0.05	0.07	0.47
Complete secondary, technical	0.06	0.08	0.46	-0.09	0.08	0.26	-0.22	0.09	0.02	0.06	0.07	0.37	-0.03	0.08	0.69	-0.10	0.11	0.37
Complete university	0.00	0.10	0.99	-0.36	0.12	0.00	-0.32	0.12	0.01	-0.02	0.09	0.78	-0.19	0.10	0.05	-0.07	0.22	0.75
<b>Employment</b>	Reference group																	
Self-employed	0.08	0.09	0.40	-0.08	0.12	0.50	-0.04	0.08	0.61	-0.24	0.08	0.00	0.01	0.09	0.89	-0.02	0.12	0.90
Salaried employee in public company	Reference group																	
Salaried employee in private company	0.03	0.10	0.75	-0.02	0.13	0.89	-0.05	0.09	0.57	-0.21	0.09	0.03	0.09	0.10	0.40	-0.21	0.14	0.13
Unemployed	-0.01	0.15	0.93	-0.16	0.16	0.30	-0.04	0.10	0.68	-0.21	0.12	0.08	0.05	0.12	0.70	-0.08	0.17	0.64
Retired	0.13	0.16	0.43	-0.13	0.19	0.49	0.08	0.10	0.41	-0.07	0.14	0.60	0.02	0.14	0.86	-0.10	0.27	0.70
Don't work – responsible for housework	0.07	0.09	0.46	-0.03	0.12	0.82	-0.01	0.09	0.94	-0.21	0.08	0.01	0.01	0.09	0.90	-0.04	0.12	0.72
Student	-0.01	0.12	0.91	-0.16	0.14	0.27	-0.14	0.11	0.21	-0.13	0.10	0.18	-0.07	0.11	0.52	-0.02	0.17	0.89
<b>Chief income earner</b>	Reference group																	

Yes	-0.06	0.05	0.25	-0.01	0.05	0.84	0.00	0.05	0.94	-0.01	0.05	0.92	0.01	0.05	0.80	-0.04	0.06	0.51
<b>Socioeconomic level</b>																		
Very bad	0.01	0.09	0.88	0.01	0.11	0.90	0.08	0.13	0.54	0.07	0.09	0.43	0.00	0.08	0.98	0.09	0.12	0.44
Bad	-0.01	0.05	0.81	-0.12	0.06	0.06	0.09	0.06	0.14	-0.05	0.05	0.26	0.04	0.04	0.42	0.04	0.07	0.56
Average	Reference group																	
Good	0.09	0.04	0.04	0.05	0.05	0.32	-0.07	0.04	0.09	0.10	0.05	0.03	0.14	0.05	0.00	0.01	0.06	0.82
Very good	0.11	0.09	0.25	0.17	0.10	0.08	0.03	0.07	0.68	0.09	0.10	0.38	0.17	0.14	0.22	0.07	0.09	0.46
<b>Home characteristics</b>																		
Home ownership	-0.07	0.04	0.08	-0.09	0.05	0.08	-0.07	0.04	0.13	-0.03	0.04	0.41	0.03	0.04	0.37	-0.04	0.05	0.41
Drinking water	0.05	0.06	0.38	-0.08	0.05	0.13	0.19	0.07	0.01	0.06	0.05	0.28	0.01	0.05	0.86	0.24	0.08	0.00
Sewage	0.15	0.04	0.00	0.04	0.06	0.49	0.00	0.05	1.00	-0.07	0.04	0.08	0.04	0.04	0.34	0.06	0.06	0.28
TV ownership	-0.07	0.06	0.25	-0.01	0.07	0.90	-0.19	0.08	0.02	0.09	0.04	0.04	-0.05	0.05	0.30	-0.11	0.07	0.13
<b>Satisfaction with life</b>																		
Not at all satisfied	-0.23	0.08	0.00	-0.29	0.09	0.00	-0.72	0.11	0.00	-0.24	0.08	0.00	-0.60	0.08	0.00	-0.14	0.12	0.24
Not very satisfied	-0.20	0.05	0.00	-0.29	0.06	0.00	-0.34	0.08	0.00	-0.26	0.05	0.00	-0.35	0.05	0.00	-0.18	0.06	0.00
Fairly satisfied	-0.04	0.05	0.48	-0.16	0.05	0.00	-0.12	0.08	0.11	-0.07	0.05	0.20	-0.20	0.05	0.00	-0.11	0.06	0.06
Very satisfied	Reference group																	
<b>Health Condition</b>																		
Very poor	0.12	0.16	0.45	-0.51	0.14	0.00	-0.50	0.13	0.00	-0.29	0.16	0.06	-0.58	0.15	0.00	-0.63	0.16	0.00
Poor	0.04	0.08	0.66	-0.53	0.10	0.00	-0.42	0.09	0.00	-0.33	0.10	0.00	-0.34	0.11	0.00	-0.40	0.10	0.00
Average	-0.04	0.07	0.54	-0.34	0.09	0.00	-0.30	0.06	0.00	-0.25	0.09	0.01	-0.21	0.10	0.04	-0.26	0.08	0.00
Good	0.01	0.07	0.90	-0.23	0.08	0.01	-0.17	0.06	0.00	-0.14	0.09	0.13	-0.07	0.10	0.51	0.02	0.07	0.74
Very good	Reference group																	
<b>Coverage of health expenses</b>																		
Private insurance	0.23	0.08	0.00	0.05	0.10	0.61	0.41	0.11	0.00	0.22	0.07	0.00	0.18	0.07	0.01	0.13	0.09	0.14
Public insurance	0.04	0.06	0.53	0.10	0.05	0.05	0.19	0.11	0.08	0.05	0.05	0.27	0.10	0.04	0.01	0.06	0.06	0.30
No Insurance	Reference group																	
<b>Healthcare spending per capita</b>																		
HSPC scaled (100 USD-PPP)	0.04	0.04	0.33	0.16	0.28	0.57	-0.05	0.02	0.02	1.10	0.22	0.00	-0.27	0.07	0.00	-0.92	0.20	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

By individually analyzing the countries in the Latin American region we can better understand the associations and effects of the variables on healthcare access satisfaction for women in the region after adjusting for other factors in the model. In this regard, women living in the different Latin American countries included in the sample are consistently less satisfied with their healthcare access as their income decreases, with an ample range between Paraguay, where women are 0.61 points less satisfied with their healthcare access (SE 0.12,  $p < 0.00$ ) and Guatemala and Honduras, where women are only 0.14 points less satisfied with their healthcare access (SE 0.09/0.10,  $p = 0.13/p = 0.17$ ), when compared to women who have enough income where they can save. Clearly the effects and negative magnitudes are consistent throughout all the countries in the region while also being mostly significant.

In addition, women living in the rural areas are generally more satisfied with their healthcare access when compared to those living in the large urban or capita areas of their respective countries. The range spans from Bolivia, where we perceive the highest satisfaction, where women in the rural areas are 0.26 points more satisfied with their healthcare access (SE 0.07,  $p < 0.00$ ) to Guatemala, where women in the rural areas are 0.01 points more satisfied with their healthcare access (SE 0.09,  $p = 0.90$ ), when compared to those living in the capital areas of the country. . Except for a few countries like Colombia, Costa Rica and Dominican Republic, women in the rural areas are generally more or just as satisfied with their healthcare access and even in these three countries, as women in the peri-urban areas are generally more satisfied with their healthcare access when compared to large urban or capital areas of their respective countries. Clearly, although health infrastructure might not be readily available in many of the countries, women living in the rural areas of their countries are generally more satisfied with their healthcare access, when compared to those living in the large urban and capital areas of the country, after adjusting for other factors in the model.

Throughout the different Latin American countries, women with private health insurance are consistently more satisfied with their healthcare access when compared to those with public insurance,



who are consistently more satisfied when compared to those with no insurance. The range spans from women in Colombia with private health insurance who are 0.59 points more satisfied with their healthcare access (SE 0.07,  $p < 0.00$ ) to women living El Salvador who are only 0.05 points more satisfied with their healthcare access (SE 0.10,  $p = 0.61$ ). For public insurance the range spans from women in Colombia who are 0.39 points more satisfied with their healthcare access (SE 0.06,  $p < 0.00$ ) to women in Panama, who are only 0.02 points more satisfied with their healthcare access (SE 0.05,  $p = 0.60$ ). However it should be noted that women in Venezuela and Mexico are more satisfied with their healthcare access through public insurance, although not by much, which is probably due to the strong public health insurance schemes present in those two countries.

Generally speaking, for women living in different Latin American countries, as their education level increases, their satisfaction with healthcare access decreases. In addition, those women who are less satisfied with their life or whose socioeconomic status is worse tend to be less satisfied with their healthcare access, while those women in worse health condition are generally less satisfied with their healthcare access throughout the different Latin American countries. However as women get older, they are either more or less satisfied with their healthcare access depending on the country when compared to younger women, while those who are married or divorced/separated are generally just as satisfied with their healthcare access when compared to single women.

Increased healthcare spending in different Latin American countries seems to have a dual effect. In a few of the higher ranking countries a positive effect is perceived, such as Colombia where an increase in healthcare spending leads to 0.07 points increase in healthcare access satisfaction (SE 0.06,  $p = 0.24$ ), and Mexico where an increase in healthcare spending leads to 0.17 points increase in healthcare access satisfaction (SE 0.05,  $p < 0.00$ ). However the larger positive effect on satisfaction is seen on lower ranking countries, such as Nicaragua where there is a 0.30 points increase in healthcare access satisfaction (SE 0.10,  $p < 0.00$ ) and Bolivia, where an increase in healthcare spending has the

largest effect throughout the different countries with a 1.10 points increase in healthcare access satisfaction (SE 0.22,  $p < 0.00$ ). Clearly the effect is greater in those countries that historically have lower levels of spending in average.

On the other hand we can see in various other countries that an increase in healthcare spending per capita leads to a decrease in healthcare access satisfaction for women. This is perceived in higher ranking countries, like Chile and Costa Rica, where an increase in healthcare spending per capita leads to a decrease in healthcare access satisfaction for women by 0.05 points (SE 0.03,  $p = 0.08$ ) and 0.06 points (SE 0.02,  $p < 0.00$ ) respectively. However we can see that the greater negative effect is on those countries with lower health system rankings for the region, like Brazil, Peru and Honduras. For Brazil, an increase in healthcare spending per capita leads to a decrease in satisfaction by 0.05 points (SE 0.02,  $p < 0.05$ ), while for Peru healthcare access is decreased by 0.27 points (SE 0.07,  $p < 0.00$ ) and for Honduras we see the greatest effect for the region in a decrease of healthcare access satisfaction by 0.92 points (SE 0.20,  $p < 0.00$ ). In this regard, we can conclude that the lower the country ranking the greater the effect healthcare spending seems to have on healthcare access satisfaction. Clearly further analyses are required to ascertain the association of healthcare access satisfaction and healthcare spending per capita and, therefore, further stratified analyses will be performed to compare countries with healthcare spending above and below the mean for the region, while also stratifying by healthcare access satisfaction above and below the mean. This will help in clarifying the effect on healthcare access satisfaction by the key predictors for those country clusters, while ascertaining the effect of healthcare spending per capita in the region.

f) Stratifications by regressors of interest

As results from the fixed effects and country cluster correction are comparable, stratified analyses by key variables in the model (income, location of home, health condition and health

insurance) were performed to confirm the results and isolate any additional effects that might prove consistent while also being efficient. In addition, the country fixed effect variable was included in the model to allow for adequate adjustment in country specific average variation within the sample of countries included. These analyses treat satisfaction to healthcare access as continuous allowing for ease of interpretation, although it should be noted that due to the smaller sample sizes of the strata significance levels might not always help in corroborating the results.

### 1) Stratified by income

**Exhibit 20: Stratified multiple linear regression by income (including the country fixed effect in the model) for satisfaction with access to healthcare for women in Latin America.**

VARIABLES	INCOME											
	Not sufficient - major problems N=6787			Not sufficient – have problems N=14713			Just sufficient – no major problems N=13652			Sufficient that can save N=2819		
	B	SE	p	β	SE	p	β	SE	p	β	SE	p
<b>City/Town size</b>												
0-20000 (rural)	0.10	0.05	0.05	0.06	0.04	0.10	0.04	0.03	0.22	-0.14	0.06	0.04
20001-100000 (peri-urban)	0.05	0.05	0.29	0.02	0.04	0.69	0.05	0.03	0.09	-0.14	0.05	0.01
100,000 + (large-urban)	-0.02	0.04	0.59	-0.01	0.03	0.71	0.03	0.03	0.35	-0.15	0.05	0.01
Capital (provincial capital)												
	Reference group											
<b>Year</b>												
2004												
	Reference group											
2005	-0.08	0.05	0.14	-0.03	0.05	0.49	0.04	0.04	0.29	-0.06	0.06	0.33
2006	-0.11	0.05	0.05	-0.02	0.05	0.71	0.07	0.04	0.06	-0.05	0.08	0.54
2007	-0.12	0.06	0.08	-0.15	0.05	0.01	-0.08	0.04	0.03	-0.19	0.08	0.03
<b>Age</b>												
18-25												
	Reference group											
26-40	-0.05	0.03	0.10	-0.02	0.02	0.27	-0.02	0.02	0.47	0.00	0.05	0.99
41-60	-0.03	0.04	0.52	0.00	0.02	0.87	0.01	0.03	0.84	0.02	0.07	0.75
61+	-0.09	0.05	0.09	-0.03	0.04	0.50	0.05	0.04	0.28	0.10	0.08	0.25
<b>Marital status</b>												
Married or living w/partner	0.00	0.04	0.94	-0.02	0.03	0.56	-0.01	0.02	0.66	0.01	0.05	0.89
Never married												
	Reference group											
Separated/divorced/widower	-0.07	0.04	0.06	0.00	0.04	0.90	0.02	0.03	0.58	0.19	0.10	0.08
<b>Education level</b>												
Illiterate												
	Reference group											
Incomplete primary	0.03	0.03	0.32	-0.02	0.03	0.51	0.04	0.03	0.23	0.06	0.10	0.55
Complete primary	-0.02	0.04	0.62	-0.03	0.03	0.31	0.04	0.04	0.34	0.11	0.11	0.33
Complete secondary, technical	-0.08	0.06	0.16	-0.11	0.04	0.01	0.02	0.04	0.62	0.10	0.09	0.30
Complete university	-0.25	0.07	0.00	-0.16	0.04	0.00	-0.04	0.05	0.40	0.07	0.11	0.53
<b>Employment</b>												
Self-employed	-0.05	0.07	0.46	-0.04	0.04	0.31	0.00	0.03	0.92	-0.03	0.04	0.51
Salaried employee in public company												
	Reference group											
Salaried employee in private company	-0.12	0.07	0.09	-0.06	0.04	0.15	-0.02	0.04	0.53	-0.07	0.06	0.21
Unemployed	-0.06	0.07	0.39	-0.10	0.05	0.08	0.01	0.04	0.87	0.00	0.06	0.99
Retired	0.06	0.08	0.48	0.05	0.07	0.43	0.08	0.05	0.11	0.02	0.15	0.91
Don't work – responsible for housework	0.03	0.06	0.59	-0.01	0.04	0.75	0.05	0.04	0.22	0.03	0.06	0.65
Student	0.06	0.08	0.46	-0.07	0.06	0.23	-0.01	0.04	0.77	-0.01	0.07	0.85
<b>Chief income earner</b>												
Yes	0.01	0.03	0.67	-0.02	0.02	0.45	-0.03	0.02	0.12	-0.02	0.04	0.70

<b>Socioeconomic level</b>												
Very bad	-0.12	0.05	0.02	-0.02	0.04	0.67	0.02	0.08	0.83	-0.11	0.22	0.62
Bad	-0.05	0.02	0.04	-0.05	0.02	0.03	0.02	0.03	0.49	0.00	0.07	0.97
Average	Reference group											
Good	-0.05	0.03	0.08	-0.02	0.02	0.34	0.03	0.02	0.18	0.00	0.03	0.92
Very good	0.00	0.07	0.99	-0.02	0.03	0.60	0.05	0.03	0.14	0.04	0.05	0.41
<b>Home characteristics</b>												
Home ownership	-0.03	0.03	0.32	-0.01	0.02	0.80	-0.01	0.02	0.54	0.01	0.04	0.80
Drinking water	-0.03	0.03	0.28	0.06	0.03	0.06	0.08	0.04	0.07	0.10	0.09	0.27
Sewage	0.05	0.03	0.15	0.01	0.02	0.40	0.01	0.03	0.66	-0.03	0.04	0.49
TV ownership	-0.04	0.03	0.17	0.01	0.04	0.76	-0.02	0.04	0.57	-0.12	0.09	0.21
<b>Satisfaction with life</b>												
Not at all satisfied	-0.42	0.06	0.00	-0.37	0.04	0.00	-0.35	0.06	0.00	-0.68	0.17	0.00
Not very satisfied	-0.27	0.04	0.00	-0.29	0.03	0.00	-0.27	0.02	0.00	-0.30	0.06	0.00
Fairly satisfied	-0.12	0.04	0.01	-0.14	0.02	0.00	-0.11	0.02	0.00	-0.09	0.05	0.09
Very satisfied	Reference group											
<b>Health condition</b>												
Very poor	-0.44	0.08	0.00	-0.30	0.06	0.00	-0.29	0.12	0.03	-0.30	0.20	0.15
Poor	-0.37	0.07	0.00	-0.27	0.04	0.00	-0.31	0.05	0.00	-0.24	0.07	0.00
Average	-0.25	0.06	0.00	-0.17	0.03	0.00	-0.21	0.03	0.00	-0.26	0.05	0.00
Good	-0.07	0.06	0.22	-0.05	0.03	0.10	-0.12	0.02	0.00	-0.16	0.05	0.00
Very good	Reference group											
<b>Coverage of health expenses</b>												
Private insurance	0.16	0.08	0.08	0.18	0.04	0.00	0.18	0.05	0.00	0.18	0.06	0.01
Public insurance	0.18	0.04	0.00	0.11	0.03	0.00	0.09	0.03	0.00	0.04	0.05	0.50
No insurance	Reference category											
<b>Healthcare spending per capita</b>												
HSPC scaled (100 USD PPP)	0.03	0.01	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.02	0.01	0.07
<b>Health system ranking</b>												
Latin American ranking	0.00	0.00	0.48	0.00	0.00	0.57	0.00	0.00	0.34	0.00	0.01	0.53
<b>Fixed Effect</b>												
Fixed country effect	1.13	0.07	0.00	1.00	0.03	0.00	0.95	0.03	0.00	0.90	0.11	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Latin American women whose income is not sufficient and live in the rural areas are 0.10 points more satisfied with their healthcare access (SE 0.05,  $p < 0.05$ ), while women living in the peri-urban areas are 0.05 points more satisfied (SE 0.05,  $p = 0.29$ ), and those living in large urban areas are 0.02 points less satisfied (SE 0.04,  $p = 0.59$ ) when compared to those women living in the capital. However as women's income increases their satisfaction with healthcare access is somewhat reduced for rural to 0.06 points more satisfied (SE 0.04,  $p < 0.10$ ), peri-urban 0.02 more satisfied (SE 0.04,  $p = 0.69$ ) and large urban 0.01 less satisfied (SE 0.09,  $p < 0.05$ ). Women whose income is sufficient and live in the rural areas are only 0.04 points more satisfied with their healthcare access (SE 0.03,  $p = 0.22$ ), while women living in the peri-urban areas are 0.05 points more satisfied (SE 0.03,  $p < 0.10$ ) and those living in the large urban areas are 0.03 points more satisfied (SE 0.03,  $p = 0.35$ ), when compared to those living in the capital. Finally, women who live in the rural areas and whose income is sufficient that they can save are 0.14 points less

satisfied with their healthcare access (SE 0.06,  $p < 0.05$ ), while those who live in peri-urban areas are 0.14 points less satisfied (SE 0.05,  $p < 0.01$ ) and those living in the larger urban areas are 0.15 points less satisfied (SE 0.05,  $p < 0.01$ ), when compared to those women living in the capital. In other words, the greater the income Latin American women have the less difference the location of their home makes in the healthcare access satisfaction, except when their income is enough that they can save.

Latin American women whose income is not sufficient and whose health condition is very poor are 0.30 to 0.44 points less satisfied with their healthcare access (SE 0.06/0.08,  $p < 0.00/p < 0.00$ ), while those whose health condition is poor are 0.27 to 0.37 points less satisfied (SE 0.04/0.07,  $p < 0.00/p < 0.00$ ), and those whose health condition is average are 0.17 to 0.25 points less satisfied with their healthcare access (SE 0.03/0.06,  $p < 0.00/p < 0.00$ ) and those whose health condition is good are 0.05 to 0.07 points less satisfied with their healthcare access (SE 0.03/0.06,  $p < 0.10/p = 0.22$ ), when compared to those women in very good health condition. However as women's income increases their satisfaction with healthcare access increases somewhat, as those in very poor health condition are 0.29 to 0.30 points less satisfied with their healthcare access (SE 0.20/0.12,  $p = 0.15/p < 0.05$ ), while those in poor health are 0.24 to 0.31 points less satisfied (SE 0.07/0.05,  $p < 0.00/p < 0.00$ ), and those whose health is average are 0.21 to 0.26 less satisfied (SE 0.03/0.05,  $p < 0.00/p < 0.00$ ) and those whose health is good are 0.12 to 0.16 points less satisfied with their healthcare access (SE 0.02/0.05,  $p < 0.00/p < 0.00$ ) when compared to those women in very good health condition. In other words, the greater the income Latin American women in very poor or poor health have, the less difference their health condition makes in the healthcare access satisfaction. However the greater the income Latin American in average and good health have, the greater the difference their health condition makes in their healthcare access satisfaction.

Latin American women whose income is not sufficient and have private health insurance are 0.16 to 0.18 points more satisfied with their healthcare access (SE 0.08/0.04,  $p < 0.10/p < 0.00$ ), while those who have public health insurance are 0.11 to 0.18 points more satisfied with their healthcare

access (SE 0.03/0.04,  $p < 0.00/p < 0.00$ ), when compared to those women who have no health insurance. However women whose income is sufficient and who have private health insurance are 0.18 points more satisfied with their healthcare access (SE 0.05/0.06,  $p < 0.00/p < 0.01$ ), while women with public health insurance are 0.04 to 0.09 points more satisfied with their healthcare access (SE 0.05/0.03,  $p = 0.50/p < 0.00$ ) when compared to those women with no health insurance. In other words, the greater income Latin American women have the less difference their health insurance makes in their healthcare access satisfaction.

Finally, country to country variations in healthcare organization (country fixed effects) play a greater role for women whose income is not sufficient when compared to those women whose income is sufficient. In other words, those with greater income might have more resources to compensate for the differences or deficiencies in their respective countries, than those with less income, affecting their healthcare access satisfaction. However, the country fixed effect may also include other underlying factors affecting these country to country variations beside healthcare organization, such as patient expectations or others.

Generally speaking, the greater the income Latin American women have, the less difference employment, socioeconomic status, owning a home, sewage, health condition, health insurance, healthcare spending per capita, country health system ranking and country-fixed effects have on healthcare access satisfaction. However, the greater the income women have the greater the negative difference the location of their home, owning a TV and satisfaction with life make in their healthcare access satisfaction, while the greater positive difference marital status and education level make in their healthcare access satisfaction.

## 2) Stratified by location of home

**Exhibit 21: Stratified multiple linear regression by city/town size (including the country fixed effect in the model) for satisfaction with access to healthcare for women in Latin America.**

VARIABLES	CITY/TOWN SIZE											
	Rural – less than 20,000 N=10611			Peri-urban 20,000-100,000 N=10212			Large urban >100,000 N=10182			Capital N=6966		
	β	SE	p	β	SE	p	β	SE	p	β	SE	p
<b>Household income</b>	Reference group											
Not sufficient, major problems	-0.26	0.05	0.00	-0.31	0.05	0.00	-0.38	0.05	0.00	-0.50	0.06	0.00
Not sufficient, have problems	-0.18	0.03	0.00	-0.24	0.05	0.00	-0.25	0.05	0.00	-0.40	0.04	0.00
Just sufficient, no major problems	-0.09	0.04	0.03	-0.08	0.04	0.06	-0.08	0.03	0.02	-0.28	0.04	0.00
Sufficient that you can save	Reference group											
<b>Year</b>	Reference group											
2004	Reference group											
2005	-0.06	0.06	0.30	-0.07	0.05	0.19	0.02	0.05	0.70	0.06	0.04	0.21
2006	-0.07	0.05	0.18	-0.07	0.06	0.24	0.02	0.05	0.70	0.14	0.04	0.00
2007	-0.18	0.05	0.00	-0.19	0.06	0.00	-0.09	0.05	0.09	-0.02	0.05	0.65
<b>Age</b>	Reference group											
18-25	Reference group											
26-40	0.01	0.02	0.67	-0.06	0.02	0.02	0.00	0.03	0.97	-0.05	0.03	0.13
41-60	0.02	0.03	0.50	-0.01	0.02	0.59	0.01	0.03	0.72	-0.05	0.03	0.12
61+	0.00	0.04	0.98	-0.03	0.04	0.44	0.05	0.04	0.19	-0.08	0.05	0.14
<b>Marital status</b>	Reference group											
Married or living w/partner	-0.04	0.02	0.14	-0.03	0.03	0.36	-0.01	0.03	0.68	0.06	0.03	0.03
Never married	Reference group											
Separated/divorced/widower	-0.01	0.03	0.76	0.01	0.03	0.83	-0.04	0.04	0.34	0.06	0.04	0.17
<b>Education level</b>	Reference group											
Illiterate	Reference group											
Incomplete primary	0.04	0.03	0.30	0.01	0.03	0.70	0.03	0.04	0.55	-0.10	0.04	0.05
Complete primary	0.00	0.05	0.96	-0.02	0.03	0.57	0.01	0.04	0.75	-0.04	0.04	0.34
Complete secondary, technical	-0.03	0.04	0.45	-0.09	0.04	0.05	-0.02	0.05	0.67	-0.10	0.04	0.04
Complete university	-0.21	0.05	0.00	-0.17	0.06	0.01	-0.02	0.05	0.70	-0.15	0.05	0.01
<b>Employment</b>	Reference group											
Self-employed	-0.04	0.05	0.44	-0.03	0.05	0.49	-0.03	0.04	0.56	0.01	0.04	0.88
Salaried employee in public company	Reference group											
Salaried employee in private company	-0.05	0.05	0.29	-0.11	0.05	0.04	-0.05	0.03	0.08	0.01	0.04	0.79
Unemployed	-0.06	0.05	0.24	-0.11	0.06	0.07	-0.02	0.06	0.72	0.01	0.06	0.87
Retired	0.08	0.05	0.14	0.06	0.08	0.48	0.06	0.07	0.45	0.14	0.06	0.03
Don't work – responsible for housework	0.03	0.05	0.56	-0.01	0.04	0.80	0.00	0.04	0.97	0.08	0.05	0.12
Student	-0.09	0.06	0.16	-0.07	0.05	0.19	0.02	0.04	0.57	0.01	0.05	0.88
<b>Chief income earner</b>	Reference group											
Yes	0.02	0.01	0.12	-0.04	0.02	0.09	-0.02	0.02	0.30	0.01	0.03	0.83
<b>Socioeconomic level</b>	Reference group											
Very bad	-0.07	0.06	0.26	-0.09	0.05	0.10	-0.03	0.05	0.51	0.04	0.06	0.45
Bad	0.00	0.02	0.95	-0.03	0.04	0.45	-0.03	0.02	0.28	-0.09	0.03	0.00
Average	Reference group											
Good	0.00	0.02	0.98	0.00	0.02	0.89	-0.01	0.03	0.81	0.01	0.03	0.83
Very good	0.10	0.04	0.01	-0.03	0.04	0.38	-0.01	0.04	0.80	0.07	0.06	0.22
<b>Home characteristics</b>	Reference group											
Home ownership	0.02	0.03	0.53	-0.05	0.02	0.05	-0.02	0.04	0.54	0.00	0.02	0.84
Drinking water	0.07	0.04	0.11	0.04	0.03	0.12	0.05	0.02	0.05	-0.04	0.07	0.54
Sewage	0.01	0.02	0.67	0.01	0.01	0.32	0.03	0.03	0.30	0.00	0.06	0.99
TV ownership	-0.02	0.04	0.65	0.05	0.04	0.20	-0.08	0.04	0.08	-0.06	0.05	0.28
<b>Satisfaction with life</b>	Reference group											
Not at all satisfied	-0.37	0.05	0.00	-0.42	0.06	0.00	-0.37	0.07	0.00	-0.43	0.05	0.00
Not very satisfied	-0.32	0.03	0.00	-0.25	0.03	0.00	-0.25	0.03	0.00	-0.29	0.03	0.00
Fairly satisfied	-0.14	0.03	0.00	-0.13	0.02	0.00	-0.09	0.02	0.00	-0.10	0.02	0.00
Very satisfied	Reference group											
<b>Health condition</b>	Reference group											

Very poor	-0.25	0.07	0.00	-0.50	0.07	0.00	-0.33	0.09	0.00	-0.34	0.12	0.01
Poor	-0.33	0.05	0.00	-0.31	0.03	0.00	-0.32	0.05	0.00	-0.30	0.06	0.00
Average	-0.20	0.03	0.00	-0.22	0.03	0.00	-0.22	0.03	0.00	-0.22	0.05	0.00
Good	-0.08	0.04	0.04	-0.09	0.02	0.00	-0.12	0.03	0.00	-0.10	0.03	0.01
Very good												
Reference group												
<b>Coverage of health expenses</b>												
Private insurance	0.13	0.04	0.01	0.14	0.05	0.01	0.19	0.04	0.00	0.28	0.06	0.00
Public insurance	0.11	0.02	0.00	0.11	0.04	0.01	0.09	0.02	0.00	0.14	0.03	0.00
No insurance												
Reference group												
<b>Healthcare spending per capita</b>												
HSPC scaled (100 USD PPP)	0.03	0.01	0.00	0.04	0.01	0.00	0.03	0.00	0.00	0.01	0.01	0.13
<b>Health system ranking</b>												
Latin American ranking	0.00	0.00	0.10	0.00	0.00	0.82	-0.01	0.00	0.01	0.00	0.00	0.60
<b>Fixed Effect</b>												
Fixed country effect	0.90	0.08	0.00	1.08	0.05	0.00	1.00	0.05	0.00	0.91	0.08	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Latin American women living in the rural areas, whose income is insufficient, are 0.26 to 0.31 points less satisfied with their healthcare access (SE 0.05/0.05,  $p < 0.00/p < 0.00$ ), while those women who live in larger cities or towns are less satisfied with their healthcare access by 0.38 to 0.50 points (SE 0.05/0.06,  $p < 0.00/p < 0.00$ ) when compared to those women whose income allows them to save. In addition, women who live in the rural areas and whose income is sufficient are 0.08 to 0.09 points less satisfied with their healthcare access (SE 0.04/0.04,  $p < 0.10/p < 0.05$ ), while those living in the larger cities and towns are 0.08 to 0.28 points less satisfied with their healthcare access (SE 0.03/0.04,  $p < 0.05/p < 0.00$ ) when compared to those women whose income allows them to save. In other words, the larger the size of the town/city in which Latin American women live the less satisfied they tend to be with their healthcare access when stratifying by income.

Latin American women who live in the rural and peri-urban areas and whose health condition is very poor are 0.25 to 0.50 points less satisfied with their healthcare access (SE 0.07/0.07,  $p < 0.00/p < 0.00$ ), while those whose health condition is poor are 0.31 to 0.33 points less satisfied (SE 0.03/0.05,  $p < 0.00/p < 0.00$ ), and those whose health condition is average are 0.20 to 0.22 points less satisfied (SE 0.03/0.03,  $p < 0.00/p < 0.00$ ) and those whose health condition is good are 0.08 to 0.09 points less satisfied with their healthcare access (SE 0.04/0.02,  $p < 0.05/p < 0.00$ ), when compared to those women in very good health condition. However, women who live in larger towns and cities have different levels of healthcare access satisfaction, as those in very poor health condition are 0.33 to 0.34



points less satisfied with their healthcare access (SE 0.09/0.12,  $p < 0.00/p < 0.01$ ), while those in poor health are 0.30 to 0.32 points less satisfied (SE 0.06/0.05,  $p < 0.00/p < 0.00$ ), and those whose health is average are 0.22 less satisfied (SE 0.03/0.05,  $p < 0.00/p < 0.00$ ) and those whose health condition is good are 0.10 to 0.12 points less satisfied (SE 0.03/0.03,  $p < 0.01/p < 0.00$ ) when compared to those women in very good health condition. In other words, the larger the town or city Latin American women, the less difference their health condition makes in the healthcare access satisfaction.

Latin American women who live in rural and peri-urban areas and have private health insurance are 0.13 to 0.14 points more satisfied with their healthcare access (SE 0.04/0.05,  $p < 0.01/p < 0.01$ ), while those who have public health insurance are 0.11 points more satisfied (SE 0.02/0.04,  $p < 0.00/p < 0.01$ ), when compared to those women who have no health insurance. However, women who live in larger towns or cities and who have private health insurance are 0.19 to 0.28 points more satisfied with their healthcare access (SE 0.04/0.06,  $p < 0.00/p < 0.00$ ), while women with public health insurance are 0.09 to 0.14 points more satisfied (SE 0.02/0.03,  $p < 0.00/p < 0.00$ ), when compared to those women with no health insurance. In other words, the larger the town or city Latin American women live in the greater the difference their health insurance makes in their healthcare access satisfaction.

Finally, country to country variations in healthcare organization (country fixed effects) play a greater role for those women living in the peri-urban areas while playing a lesser role for those women in the rural, large urban and capital areas of their respective countries. In other words, those living in the rural, large urban and capital areas might have access to certain resources which compensate for the differences or deficiencies than those living in the peri-urban areas. However, the country fixed effect may also include other factors affecting these country to country variations beside healthcare organization, such as patient expectations or others.

Generally speaking, the larger the size of the town or city in which Latin American women live, the less difference education level, employment or unemployment, being a chief income earner,

socioeconomic status, owning a home, access to drinking water, sewage, satisfaction with life, health condition, healthcare spending per capita, country health system ranking and country-fixed effects make in their healthcare access satisfaction. However, the larger the size of the town/city in which women live the greater the negative difference income, age and owning a TV make in their healthcare access satisfaction while the greater the positive difference marital status and having health insurance make in their healthcare access satisfaction.

### 3) Stratified by health condition

**Exhibit 22: Stratified multiple linear regression by self-perceived health condition (including the country fixed effect in the model) for satisfaction with access to healthcare for women in Latin America.**

VARIABLES	HEALTH CONDITION STATUS														
	Very poor N=761			Poor N=3372			Average N=14712			Good N=14838			Very good N=4288		
	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
<b>Household income</b>	Reference group														
Not sufficient, major problems	-0.52	0.20	0.02	-0.45	0.09	0.00	-0.33	0.05	0.00	-0.29	0.04	0.00	-0.40	0.06	0.00
Not sufficient, have problems	-0.37	0.19	0.07	-0.32	0.08	0.00	-0.24	0.05	0.00	-0.24	0.04	0.00	-0.34	0.05	0.00
Just sufficient, no major problems	-0.18	0.21	0.41	-0.21	0.09	0.04	-0.09	0.04	0.03	-0.11	0.03	0.00	-0.15	0.04	0.00
Sufficient that you can save	Reference group														
<b>City/Town size</b>	Reference group														
0-20000 (rural)	0.16	0.11	0.18	0.06	0.05	0.24	0.06	0.03	0.07	0.04	0.03	0.29	-0.01	0.05	0.81
20001-100000 (peri-urban)	-0.10	0.13	0.46	0.05	0.05	0.34	0.03	0.04	0.45	0.02	0.03	0.45	0.01	0.03	0.85
100,000 + (large-urban)	-0.02	0.10	0.87	-0.01	0.06	0.89	0.00	0.03	0.90	-0.02	0.03	0.54	-0.03	0.04	0.47
Capital (provincial capital)	Reference group														
<b>Year</b>	Reference group														
2004	Reference group														
2005	0.18	0.09	0.05	0.11	0.05	0.05	0.01	0.05	0.85	-0.08	0.04	0.08	-0.10	0.06	0.15
2006	0.16	0.08	0.08	0.10	0.05	0.07	0.01	0.05	0.85	-0.04	0.05	0.47	-0.08	0.07	0.27
2007	0.17	0.09	0.09	0.04	0.07	0.57	-0.11	0.05	0.03	-0.18	0.05	0.00	-0.25	0.06	0.00
<b>Age</b>	Reference group														
18-25	Reference group														
26-40	0.25	0.12	0.05	-0.03	0.05	0.63	-0.01	0.03	0.69	-0.03	0.02	0.08	-0.04	0.04	0.25
41-60	0.19	0.14	0.19	-0.03	0.05	0.57	0.00	0.03	0.98	0.02	0.02	0.46	-0.08	0.06	0.15
61+	0.17	0.16	0.31	-0.07	0.06	0.30	-0.02	0.04	0.63	0.06	0.03	0.04	-0.03	0.08	0.75
<b>Marital status</b>	Reference group														
Married or living w/partner	-0.06	0.10	0.52	-0.07	0.05	0.17	0.01	0.02	0.63	0.00	0.02	0.80	-0.07	0.04	0.11
Never married	Reference group														
Separated/divorced/widower	-0.08	0.10	0.40	-0.09	0.06	0.14	0.01	0.02	0.71	0.03	0.03	0.37	-0.01	0.07	0.90
<b>Education level</b>	Reference group														
Illiterate	Reference group														
Incomplete primary	-0.06	0.11	0.60	-0.03	0.06	0.64	-0.02	0.03	0.63	0.04	0.03	0.26	0.16	0.12	0.18
Complete primary	-0.07	0.14	0.64	-0.02	0.05	0.59	-0.04	0.04	0.35	0.02	0.04	0.68	0.21	0.14	0.14
Complete secondary, technical	-0.17	0.13	0.20	-0.08	0.05	0.11	-0.09	0.04	0.06	-0.03	0.04	0.53	0.19	0.13	0.15
Complete university	-0.12	0.21	0.59	-0.10	0.09	0.26	-0.12	0.05	0.04	-0.07	0.04	0.11	0.04	0.15	0.79
<b>Employment</b>	Reference group														
Self-employed	-0.12	0.15	0.42	0.03	0.08	0.75	-0.05	0.04	0.27	-0.01	0.04	0.72	0.03	0.07	0.65
Salaried employee in public company	Reference group														
Salaried employee in private company	-0.08	0.20	0.71	-0.05	0.08	0.55	-0.03	0.04	0.40	-0.06	0.04	0.15	-0.04	0.07	0.58
Unemployed	-0.23	0.13	0.10	-0.06	0.13	0.67	-0.07	0.04	0.12	-0.03	0.05	0.50	0.04	0.08	0.61
Retired	-0.24	0.15	0.13	0.15	0.09	0.13	0.08	0.05	0.14	0.02	0.07	0.83	0.13	0.06	0.06
Don't work – responsible for	-0.08	0.17	0.66	0.01	0.09	0.94	-0.01	0.04	0.90	0.03	0.04	0.37	0.15	0.06	0.02

housework																
Student	-0.03	0.22	0.89	-0.10	0.12	0.44	0.01	0.04	0.75	-0.03	0.04	0.35	0.00	0.06	0.98	
<b>Chief income earner</b>																
Yes	-0.06	0.08	0.49	-0.04	0.06	0.56	-0.04	0.02	0.08	-0.02	0.02	0.47	0.11	0.04	0.01	
<b>Socioeconomic level</b>																
Very bad	-0.07	0.14	0.63	-0.15	0.07	0.05	-0.08	0.04	0.03	0.00	0.06	0.96	0.20	0.10	0.07	
Bad	-0.14	0.06	0.04	-0.03	0.03	0.32	-0.03	0.02	0.17	-0.03	0.03	0.34	0.06	0.06	0.37	
Average							Reference group									
Good	-0.18	0.08	0.05	-0.01	0.04	0.82	-0.02	0.02	0.50	0.01	0.02	0.63	0.04	0.03	0.19	
Very good	0.06	0.22	0.81	-0.05	0.09	0.57	-0.02	0.05	0.66	0.05	0.04	0.21	0.12	0.04	0.01	
<b>Home characteristics</b>																
Home ownership	0.04	0.08	0.64	0.02	0.03	0.59	-0.03	0.01	0.07	0.00	0.02	0.99	-0.01	0.03	0.76	
Drinking water	0.04	0.12	0.75	0.00	0.05	0.93	0.04	0.02	0.09	0.05	0.04	0.23	0.11	0.07	0.14	
Sewage	0.10	0.10	0.33	0.09	0.04	0.05	-0.01	0.02	0.49	0.03	0.02	0.19	0.01	0.02	0.79	
TV ownership	0.01	0.06	0.90	0.00	0.04	0.96	0.01	0.03	0.83	-0.06	0.03	0.05	-0.09	0.10	0.39	
<b>Satisfaction with life</b>																
Not at all satisfied	-0.52	0.10	0.00	-0.35	0.06	0.00	-0.48	0.05	0.00	-0.36	0.06	0.00	-0.19	0.10	0.07	
Not very satisfied	-0.39	0.11	0.00	-0.33	0.05	0.00	-0.31	0.03	0.00	-0.25	0.03	0.00	-0.21	0.04	0.00	
Fairly satisfied	-0.26	0.09	0.01	-0.13	0.04	0.00	-0.15	0.02	0.00	-0.10	0.02	0.00	-0.11	0.04	0.02	
Very satisfied							Reference group									
<b>Coverage of health expenses</b>																
Private insurance	0.17	0.12	0.17	0.18	0.07	0.03	0.21	0.04	0.00	0.16	0.04	0.00	0.21	0.07	0.01	
Public insurance	0.06	0.07	0.35	0.13	0.03	0.00	0.12	0.03	0.00	0.09	0.02	0.00	0.10	0.05	0.05	
No insurance							Reference group									
<b>Healthcare spending per capita</b>																
HSPC scaled (100 USD PPP)	0.07	0.02	0.00	0.04	0.01	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.02	0.01	0.01	
<b>Health system ranking</b>																
Latin American ranking	0.00	0.00	0.94	0.00	0.00	0.18	0.00	0.00	0.41	0.00	0.00	1.00	0.00	0.00	0.69	
<b>Fixed Effect</b>																
Fixed country effect	1.00	0.15	0.00	0.96	0.08	0.00	0.99	0.04	0.00	1.02	0.04	0.00	0.97	0.09	0.00	

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Latin America women whose health condition is very poor and have insufficient income are 0.37 to 0.52 points less satisfied with their healthcare access (SE 0.19/0.20,  $p<0.10/p<0.05$ ), while those women whose health condition is poor are 0.32 to 0.45 less satisfied (SE 0.28/0.09,  $p<0.00/p<0.00$ ), and those women whose health condition is average are 0.24 to 0.33 points less satisfied (SE 0.05/0.05,  $p<0.00/p<0.00$ ) and those women whose health condition is good are 0.24 to 0.29 points less satisfied (SE 0.04/0.04,  $p<0.00/p<0.00$ ) and those women in very good health condition are 0.34 to 0.40 points less satisfied (SE 0.05/0.06,  $p<0.00/p<0.00$ ), when compared those women whose income allows them to save. However those women whose health condition is very poor and have sufficient income are 0.18 points less satisfied with their healthcare access (SE 0.21,  $p=0.41$ ), while those whose health condition is poor are 0.21 points less satisfied (SE 0.09,  $p<0.05$ ), and those whose health condition is average are 0.09 points less satisfied (SE 0.04,  $p<0.05$ ), while those in good health condition are 0.11 points less satisfied (SE 0.03,  $p<0.00$ ), and those in very good health condition are 0.15 points less satisfied (SE 0.04,  $p<0.00$ ), when compared to those women whose income allows them to save. In other words women's health condition has a significant impact on their healthcare access satisfaction when comparing different levels of income.

Latin American women whose health condition is very poor and poor living in the rural areas 0.06 to 0.16 points more satisfied with their healthcare access (SE 0.05/0.11,  $p=0.24/p=0.18$ ), while those living in peri-urban areas are 0.05 points more satisfied (SE 0.05,  $p=0.34$ ) and those living in large urban areas are 0.01 to 0.02 points less satisfied (SE 0.06/0.10,  $p=0.87/p=0.89$ ) when compared to those women living in the capital in very poor and poor health condition. In addition, women whose health condition is average and live in the rural areas are 0.06 points more satisfied with their healthcare access (SE 0.03,  $p<0.10$ ), while those living in peri-urban areas are 0.03 points more satisfied (SE 0.04,  $p=0.45$ ), when compared to those women living in the large urban and capital areas in average health condition. In addition, those women in very good health condition living in the rural areas are 0.01

points less satisfied with their healthcare access (SE 0.05,  $p=0.81$ ), while those living in the peri-urban areas are 0.01 points more satisfied (SE 0.03,  $p=0.85$ ) and those living in the large urban areas are 0.03 points less satisfied (SE 0.04,  $p=0.47$ ) when compared to those women living in the capital in very good health condition. In other words, women living in the rural and peri-urban areas of the country tend to be more satisfied with their healthcare access even given their different health conditions.

Latin American women whose health condition is very poor and poor who have private health insurance are 0.17 to 0.18 points more satisfied with their healthcare access (SE 0.12/0.07,  $p=0.17/p<0.05$ ), while those who have public health insurance are 0.06 to 0.13 points more satisfied with their healthcare access (SE 0.07/0.03,  $p=0.35/p<0.00$ ), when compared to those women who have no health insurance. However, women whose health condition is average and who have private health insurance are 0.21 points more satisfied with their healthcare access (SE 0.04,  $p<0.00$ ), while women with public health insurance are 0.12 points more satisfied with their healthcare access (SE 0.03,  $p<0.00$ ) when compared to those women with no health insurance. Latin American women whose health condition is good and very good who have private health insurance are 0.16 to 0.21 points more satisfied with their healthcare access (SE 0.04/0.21,  $p<0.00/p<0.01$ ), while those with public health insurance are 0.09 to 0.10 points more satisfied with their healthcare access (SE 0.02/0.05,  $p<0.00/p<0.05$ ), when compared to those women with no health insurance. In other words, women with better health insurance tend to be just as satisfied with their healthcare access even given their different health conditions.

Finally, country to country variations in healthcare organization (country fixed effects) play a similar role for women in different health conditions, having an overall similar effect. In other words, women with different health condition are not affected by country to country variations as no significant changes can be perceived throughout these different conditions and proving, therefore, a similar or minimal underlying effect by other factors affecting these country to country variations.

Generally speaking the better the health condition of Latin American women the less difference income, location of their home, marital status, employment, owning a home, sewage, satisfaction with life, health insurance, healthcare spending per capita, country health system ranking and country-fixed effects make on their healthcare access satisfaction. However, the better the health status women have the greater the negative difference age and owning a TV make in the healthcare access satisfaction, while the greater positive difference their education level, unemployment/housework, being a chief income earner, socioeconomic status and access to drinking water make in their healthcare access satisfaction,

#### 4) Stratified by health insurance

**Exhibit 23: Stratified multiple linear regression by health insurance type (including the country fixed effect in the model) for satisfaction with access to healthcare for women in Latin America.**

VARIABLES	TYPE OF INSURANCE								
	None N=16805			Public N=14924			Private N=6242		
	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
<b>Household income</b>									
Not sufficient, major problems	-0.36	0.05	0.00	-0.29	0.05	0.00	-0.46	0.07	0.00
Not sufficient, have problems	-0.25	0.05	0.00	-0.23	0.04	0.00	-0.32	0.05	0.00
Just sufficient, no major problems	-0.12	0.04	0.01	-0.10	0.04	0.02	-0.15	0.04	0.00
Sufficient that you can save				Reference group					
<b>City/Town size</b>									
0-20000 (rural)	0.07	0.03	0.03	0.07	0.03	0.06	-0.02	0.06	0.72
20001-100000 (peri-urban)	0.04	0.04	0.31	0.06	0.04	0.12	-0.05	0.04	0.19
100,000 + (large-urban)	0.02	0.04	0.67	0.01	0.04	0.90	-0.06	0.03	0.10
Capital (provincial capital)				Reference group					
<b>Year</b>									
2004				Reference group					
2005	-0.05	0.05	0.31	0.01	0.03	0.81	0.00	0.04	0.99
2006	-0.07	0.05	0.15	0.05	0.05	0.29	0.04	0.04	0.31
2007	-0.15	0.06	0.02	-0.11	0.05	0.03	-0.10	0.05	0.04
<b>Age</b>									
18-25				Reference group					
26-40	-0.02	0.02	0.25	-0.02	0.02	0.36	-0.02	0.04	0.57
41-60	-0.01	0.03	0.84	0.01	0.03	0.85	0.04	0.04	0.38
61+	-0.07	0.04	0.06	0.03	0.03	0.28	0.10	0.06	0.11
<b>Marital status</b>									
Married or living w/partner	0.00	0.02	0.88	-0.01	0.02	0.50	-0.02	0.05	0.66
Never married				Reference group					
Separated/divorced/widower	-0.01	0.03	0.74	0.00	0.02	0.92	0.02	0.06	0.73
<b>Education level</b>									
Illiterate				Reference group					
Incomplete primary	-0.02	0.03	0.39	0.05	0.06	0.38	0.05	0.08	0.54
Complete primary	-0.02	0.03	0.43	0.01	0.07	0.84	0.10	0.08	0.22
Complete secondary, technical	-0.08	0.04	0.05	-0.03	0.07	0.63	0.07	0.08	0.34
Complete university	-0.22	0.04	0.00	-0.07	0.07	0.30	0.04	0.08	0.63
<b>Employment</b>									
Self-employed	-0.11	0.05	0.03	-0.03	0.03	0.32	0.06	0.03	0.04
Salaried employee in public company				Reference group					
Salaried employee in private company	-0.11	0.05	0.04	-0.06	0.03	0.06	0.03	0.04	0.39
Unemployed	-0.15	0.06	0.01	-0.09	0.03	0.00	0.20	0.07	0.01

Retired	-0.10	0.06	0.14	0.03	0.04	0.55	0.21	0.04	0.00
Don't work – responsible for housework	-0.07	0.04	0.07	0.01	0.04	0.76	0.13	0.03	0.00
Student	-0.12	0.05	0.02	-0.10	0.03	0.01	0.17	0.05	0.00
<b>Chief income earner</b>									
Yes	-0.01	0.02	0.55	-0.01	0.02	0.73	-0.03	0.03	0.36
<b>Socioeconomic level</b>									
Very bad	-0.07	0.04	0.05	0.00	0.06	0.96	-0.14	0.14	0.34
Bad	-0.04	0.03	0.14	0.00	0.02	0.99	-0.14	0.07	0.08
Average	Reference group								
Good	-0.01	0.03	0.76	0.01	0.02	0.67	0.00	0.03	0.97
Very good	0.00	0.05	0.96	0.00	0.04	0.93	0.07	0.04	0.07
<b>Home characteristics</b>									
Home ownership	-0.01	0.02	0.81	0.00	0.01	0.87	-0.05	0.03	0.09
Drinking water	0.03	0.03	0.32	0.07	0.05	0.15	0.07	0.06	0.25
Sewage	0.03	0.02	0.30	-0.01	0.02	0.61	0.03	0.04	0.42
TV ownership	0.00	0.02	0.99	-0.04	0.04	0.28	-0.13	0.05	0.01
<b>Satisfaction with life</b>									
Not at all satisfied	-0.37	0.05	0.00	-0.44	0.06	0.00	-0.43	0.09	0.00
Not very satisfied	-0.28	0.02	0.00	-0.30	0.02	0.00	-0.23	0.02	0.00
Fairly satisfied	-0.13	0.02	0.00	-0.12	0.02	0.00	-0.11	0.02	0.00
Very satisfied	Reference group								
<b>Health condition</b>									
Very poor	-0.38	0.08	0.00	-0.35	0.06	0.00	-0.28	0.09	0.01
Poor	-0.33	0.06	0.00	-0.29	0.03	0.00	-0.31	0.06	0.00
Average	-0.22	0.05	0.00	-0.21	0.02	0.00	-0.21	0.04	0.00
Good	-0.08	0.03	0.03	-0.10	0.03	0.00	-0.13	0.03	0.00
Very good	Reference group								
<b>Healthcare spending per capita</b>									
HSPC scaled (100 USD PPP)	0.03	0.01	0.00	0.03	0.00	0.00	0.01	0.01	0.10
<b>Health system ranking</b>									
Latin American ranking	0.00	0.00	0.10	0.00	0.00	0.04	0.00	0.00	0.11
<b>Fixed Effect</b>									
Fixed country effect	1.11	0.06	0.00	0.98	0.03	0.00	0.79	0.09	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Latin American women with no health insurance and whose income was not sufficient were 0.25 to 0.36 points less satisfied with their healthcare access (SE 0.05/0.05,  $p < 0.00/p < 0.00$ ), while those women who had sufficient income were 0.12 points less satisfied with their healthcare access (SE 0.04,  $p < 0.01$ ), when compared to women who had no insurance and whose income allowed them to save. Women with public health insurance and whose income was not sufficient were 0.23 to 0.29 points less satisfied with their healthcare access (SE 0.04/0.05,  $p < 0.00/p < 0.00$ ), while those women who had sufficient income were 0.10 points less satisfied with their healthcare access (SE 0.04,  $p < 0.05$ ), when compared to women who had public insurance and whose income allowed them to save. Women who had private insurance and whose income was not sufficient were 0.32 to 0.46 points less satisfied with their healthcare access (SE 0.05/0.07,  $p < 0.00/p < 0.00$ ), while women whose income was sufficient were 0.15 points less satisfied with their healthcare access (SE 0.04,  $p < 0.00$ ), when compared to those women



who had private insurance and whose income allowed them to save. In other words, women with less income but better health insurance were generally less satisfied with their healthcare access.

Latin American women who had no insurance and lived in the rural and peri-urban areas were 0.04 to 0.07 points more satisfied with their healthcare access (SE 0.04/0.03,  $p=0.31/p<0.05$ ), while those living in the large urban areas were 0.02 points more satisfied with their healthcare access (SE 0.04,  $p=0.67$ ), when compared to those women with no insurance living in the capital. Those women with public health insurance living in the rural, peri-urban and large urban areas were 0.01 to 0.07 points more satisfied with their healthcare access (SE 0.04/0.04/0.03,  $p=0.90/p=0.12/p<0.10$ ) when compared to those women with public insurance living in the capital. Interestingly, women with private health insurance living in the rural areas were 0.02 points less satisfied with their healthcare access (SE 0.06,  $p=0.72$ ), while those living in the peri-urban areas were 0.05 points less satisfied with their healthcare access (SE 0.04,  $p=0.19$ ), and those living in the large urban areas were 0.06 points more satisfied with their healthcare access (SE 0.03,  $p<0.10$ ), when compared to those women with private health insurance living in the capital. In general, women in the rural and peri-urban areas seem to be more satisfied with their healthcare access be they insured or not.

Latin American women whose health condition is very poor and poor who have no health insurance are 0.33 to 0.38 points less satisfied with their healthcare access (SE 0.06/0.08,  $p<0.00/p<0.00$ ), while those who have public health insurance are 0.29 to 0.35 points less satisfied with their healthcare access (SE 0.03/0.06,  $p<0.00/p<0.00$ ), and those with private health insurance are 0.28 to 0.31 points less satisfied with their healthcare access (SE 0.09/0.06,  $p<0.01/p<0.00$ ), when compared to those women in very good health condition. In addition, women whose health condition is average and good who had no health insurance were 0.08 to 0.21 points less satisfied with their healthcare access (SE 0.04/0.05,  $p<0.05/p<0.00$ ), while women with public health insurance were 0.10 to 0.21 points more satisfied with their healthcare access (SE 0.03/0.02,  $p<0.00/p<0.00$ ) and those with private

insurance were 0.13 to 0.21 points less satisfied with their healthcare access (SE 0.03/0.04,  $p < 0.00/p < 0.00$ ), when compared to those women in very good health. In other words, the better the health insurance Latin American women have the less difference their health condition makes in their healthcare access satisfaction.

Finally, country to country variations in healthcare organization (country fixed effects) play a greater role for women who do not have health insurance while playing a lesser role for those women who have private health insurance. In other words, those with better insurance probably have more resources to compensate for the differences or deficiencies in their respective countries than those with no insurance. However, it should be noted that the country fixed effect may also include other underlying factors affecting these country to country variations beside healthcare organization, such as patient expectations, beliefs, culture or others.

Generally speaking the better health insurance women have the less difference marital status, being a chief income earner, sewage, satisfaction with life, health condition, healthcare spending per capita and country health system ranking make in their healthcare access satisfaction. However, the better the health insurance women have the greater the negative difference income, location of their home, socioeconomic status, owning a home, owning a TV and the country-fixed effect make in their healthcare access satisfaction, while the greater the positive difference age, education level, employment, unemployment/housework and access to drinking water make in their healthcare access satisfaction.

#### a) Summary of results

The results of the stratification models which included the country fixed effects can be summarized as follows:

i. *Stratification by income*: The greater income Latin American women have the less difference the location of their home makes in the healthcare access satisfaction, except when their income is enough that they can save. In addition, the greater the income Latin American women in very poor or poor health have, the less difference their health condition makes in the healthcare access satisfaction. However, the greater the income Latin American women in average and good health have, the greater the difference their health condition makes in their healthcare access satisfaction. Furthermore, the greater income Latin American women have the less difference their health insurance makes in their healthcare access satisfaction. Finally, country to country variations in healthcare organization (country fixed effects) play a greater role for women whose income is not sufficient when compared to those women whose income is sufficient. In other words, those with greater income might have more resources to compensate for the differences or deficiencies in their respective countries, than those with less income, therefore affecting their healthcare access satisfaction.

ii. *Stratification by location of home*: The larger the size of the town/city in which Latin American women live the less satisfied they tend to be with their healthcare access when stratifying by income. In addition, the larger the town or city Latin American women live, the less difference their health condition makes in the healthcare access satisfaction. Furthermore, the larger the town or city Latin American women live in, the greater the difference their health insurance makes in their healthcare access satisfaction. Finally, country to country variations in healthcare organization (country fixed effects) play a greater role for those women living in the peri-urban areas while playing a lesser role for those women in the rural, large urban and capital areas of their respective countries. In other words, those living in the rural, large urban and capital areas might have access to certain resources which compensate for the differences or deficiencies when compared to those living in the peri-urban areas.

iii. *Stratification by health condition:* Women's health condition has a significant impact on their healthcare access satisfaction when comparing different levels of income. In addition, women living in the rural and peri-urban areas of the country tend to be more satisfied with their healthcare access even given their different health conditions. Furthermore, women with better health insurance tend to be just as satisfied with their healthcare access even given their different health conditions. Finally, country to country variations in healthcare organization (country fixed effects) play a similar role for women in different health conditions, having an overall similar effect. In other words, women with different health condition are not affected by country to country variations as no significant changes can be perceived throughout these different conditions and proving, therefore, a similar or minimal underlying effect by other factors affecting these country to country variations.

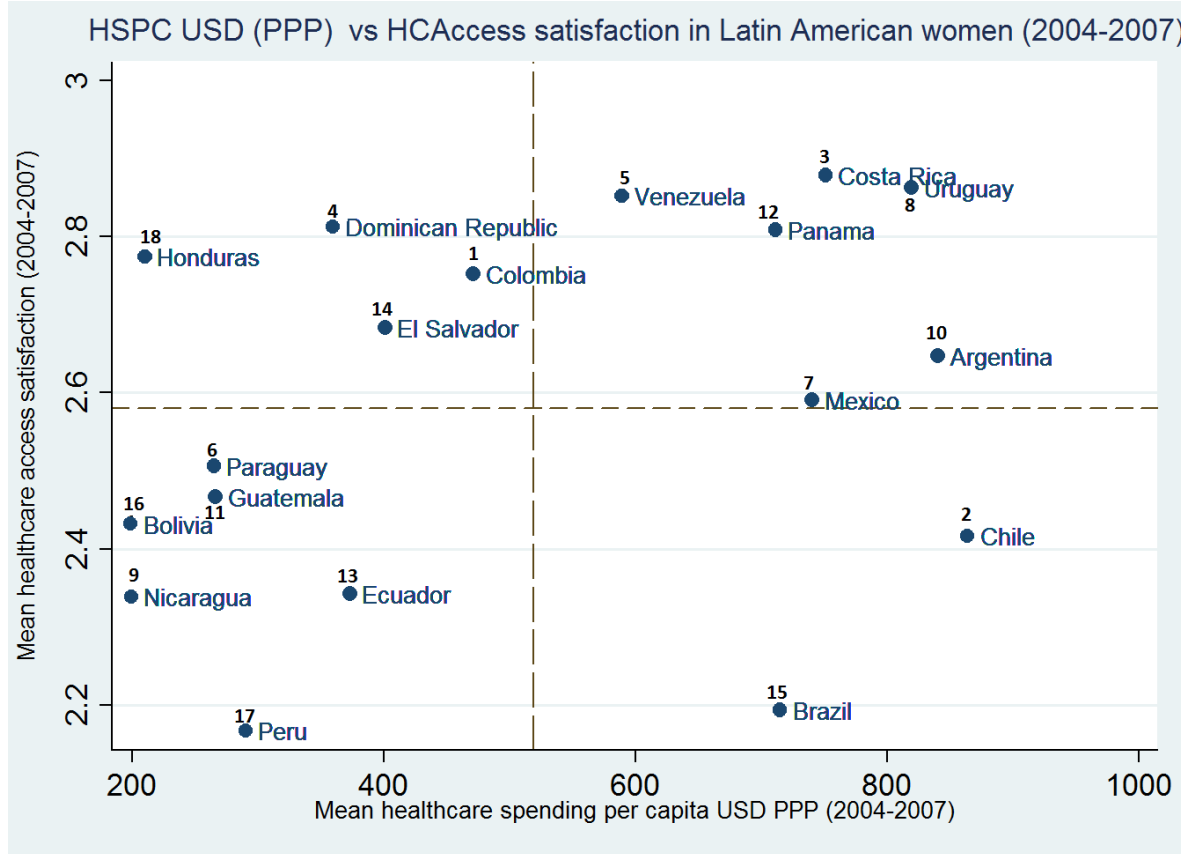
iv. *Stratification by health insurance type:* Women with less income but better health insurance are generally less satisfied with their healthcare access. In addition, women in the rural and peri-urban areas seem to be more satisfied with their healthcare access be they insured or not, although the better the health insurance Latin American women have the less difference their health condition makes in their healthcare access satisfaction. Finally, country to country variations in healthcare organization (country fixed effects) play a greater role for women who do not have health insurance and play a lesser role for those women who have private health insurance. In other words, those with better insurance probably have more resources to compensate for the differences or deficiencies in their respective countries than those with no insurance.

g) Stratifications by healthcare spending and satisfaction with access to healthcare

Further analyses of the key stratification variables, by analyzing the differences between those countries with healthcare spending above and below the mean and those countries with healthcare

access satisfaction above and below the mean, will help increase our understanding of the magnitude and effect of these variables through such stratifications. An initial graphical description will help better understand which countries throughout the study period fall in the aforementioned categories.

**Exhibit 24: Graphic representation of mean national healthcare spending per capita and mean satisfaction with access to healthcare for women in different countries of Latin America.\*\*\***



\*Dashed lines represent mean healthcare access satisfaction=2.58 / Mean healthcare spending per capita=519.10 (USD PPP)

\*\* Numbers represent the 2000 World Health Organization health system rankings for Latin America

The graphical representation of the means for the measures of healthcare spending per capita and healthcare access satisfaction throughout the four years help delineate four clearly specified quadrants. In this regard we see the cluster of countries where higher healthcare spending and higher healthcare access satisfaction are directly related, while also being able to clearly perceive those countries where lower healthcare spending and lower healthcare access satisfaction are related. However we note that a third of the countries in the sample fall under the categories that are not as intuitive as were thought, in other words, countries where lower healthcare spending and higher

satisfaction are inversely related. Further stratified analyses on these countries will help better understand the effect of the key stratification variables on healthcare access satisfaction while clarifying the magnitudes and effects. In this regard, stratifications will be made for those countries with high healthcare access satisfaction albeit low healthcare spending (Honduras, Dominican Republic, Colombia and El Salvador) as well as for those countries with high healthcare spending and low healthcare access satisfaction (Chile and Brazil). This will help in better understanding the behaviors and effects of the key variables in these countries.

### 1) Stratified by income

**Exhibit 25: Stratified multiple linear regression by income comparing women in countries with higher/lower than the mean healthcare spending per capita and higher/lower than the mean satisfaction with access to healthcare.\***

VARIABLES	INCOME											
	Not sufficient - major problems						Not sufficient – have problems					
	High HSPC/Low Score N=734			Low HSPC/High Score N=1954			High HSPC/Low Score N=1857			Low HSPC/High Score N=3082		
City/Town size	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
0-20000 (rural)	0.28	0.08	0.18	0.03	0.11	0.81	0.24	0.12	0.28	-0.11	0.06	0.15
20001-100000 (peri-urban)	0.21	0.14	0.37	0.04	0.04	0.44	0.15	0.02	0.08	-0.02	0.07	0.78
100,000 + (large-urban)	0.09	0.02	0.15	-0.05	0.06	0.49	0.04	0.01	0.16	-0.05	0.06	0.47
Capital (provincial capital)	Reference group											
<b>Year</b>	Reference group											
2004	Reference group											
2005	0.17	0.03	0.11	-0.09	0.06	0.24	0.00	0.06	0.96	-0.05	0.07	0.55
2006	0.01	0.01	0.58	-0.07	0.17	0.70	0.09	0.08	0.45	-0.07	0.10	0.55
2007	-0.20	0.11	0.32	-0.02	0.15	0.92	-0.16	0.17	0.52	-0.04	0.08	0.63
<b>Age</b>	Reference group											
18-25	Reference group											
26-40	-0.01	0.04	0.78	-0.03	0.03	0.36	0.03	0.03	0.43	-0.02	0.03	0.53
41-60	0.01	0.04	0.90	-0.11	0.06	0.15	0.04	0.02	0.27	-0.02	0.04	0.74
61+	0.02	0.06	0.82	-0.19	0.09	0.12	0.01	0.04	0.81	0.03	0.05	0.61
<b>Marital status</b>	Reference group											
Married or living w/partner	0.03	0.02	0.39	0.11	0.07	0.20	-0.11	0.07	0.36	0.03	0.04	0.51
Never married	Reference group											
Separated/divorced/widower	-0.13	0.02	0.11	-0.04	0.08	0.65	-0.01	0.11	0.96	0.04	0.07	0.62
<b>Education level</b>	Reference group											
Illiterate	Reference group											
Incomplete primary	-0.24	0.12	0.29	0.02	0.05	0.75	-0.10	0.07	0.38	-0.08	0.04	0.15
Complete primary	-0.39	0.15	0.24	0.00	0.03	0.98	-0.19	0.08	0.24	-0.05	0.07	0.53
Complete secondary, technical	-0.47	0.08	0.11	-0.11	0.12	0.42	-0.21	0.03	0.10	-0.18	0.10	0.16
Complete university	-0.34	0.03	0.06	-0.25	0.12	0.13	-0.12	0.03	0.16	-0.35	0.12	0.06
<b>Employment</b>	Reference group											
Self-employed	-0.32	0.00	0.01	0.04	0.09	0.65	0.05	0.08	0.64	0.03	0.15	0.84
Salaried employee in public company	Reference group											
Salaried employee in private company	-0.46	0.12	0.16	0.01	0.07	0.85	0.03	0.14	0.88	-0.06	0.15	0.73
Unemployed	-0.15	0.05	0.22	0.05	0.04	0.28	-0.03	0.06	0.65	-0.05	0.14	0.75
Retired	-0.15	0.22	0.62	-0.16	0.12	0.27	0.13	0.05	0.22	-0.08	0.14	0.60

Don't work – responsible for housework	-0.26	0.17	0.36	0.09	0.11	0.48	0.09	0.03	0.20	0.00	0.15	0.98
Student	0.14	0.06	0.27	-0.04	0.09	0.70	0.04	0.07	0.67	-0.11	0.23	0.65
<b>Chief income earner</b>												
Yes	0.17	0.16	0.47	0.02	0.04	0.70	0.02	0.01	0.37	0.00	0.02	0.96
<b>Socioeconomic level</b>												
Very bad	-0.03	0.07	0.73	-0.06	0.12	0.66	0.25	0.06	0.16	-0.06	0.04	0.28
Bad	0.01	0.02	0.79	-0.10	0.05	0.12	-0.10	0.07	0.36	-0.05	0.04	0.34
Average							Reference group					
Good	0.00	0.00	0.76	-0.04	0.03	0.36	-0.04	0.05	0.62	-0.03	0.05	0.56
Very good	-0.22	0.02	0.05	-0.01	0.13	0.96	-0.10	0.04	0.25	-0.04	0.06	0.53
<b>Home characteristics</b>												
Home ownership	0.05	0.07	0.57	-0.02	0.08	0.81	-0.13	0.02	0.09	-0.02	0.03	0.55
Drinking water	-0.08	0.15	0.70	-0.02	0.08	0.86	-0.03	0.12	0.85	0.09	0.06	0.24
Sewage	0.13	0.04	0.19	-0.09	0.06	0.22	-0.03	0.02	0.39	-0.07	0.04	0.14
TV ownership	-0.01	0.15	0.98	-0.05	0.08	0.54	-0.08	0.26	0.82	-0.02	0.07	0.77
<b>Satisfaction with life</b>												
Not at all satisfied	-0.48	0.21	0.26	-0.42	0.11	0.03	-0.68	0.07	0.06	-0.30	0.08	0.03
Not very satisfied	-0.32	0.01	0.01	-0.25	0.04	0.01	-0.39	0.00	0.01	-0.22	0.07	0.06
Fairly satisfied	-0.05	0.13	0.77	-0.12	0.05	0.09	-0.20	0.04	0.14	-0.13	0.06	0.11
Very satisfied							Reference group					
<b>Health condition</b>												
Very poor	-0.67	0.04	0.04	-0.61	0.12	0.02	-0.24	0.08	0.21	-0.20	0.10	0.13
Poor	-0.66	0.10	0.10	-0.47	0.14	0.04	-0.16	0.01	0.02	-0.37	0.09	0.03
Average	-0.49	0.07	0.09	-0.24	0.16	0.23	-0.12	0.07	0.33	-0.18	0.07	0.08
Good	-0.44	0.01	0.02	-0.03	0.10	0.80	-0.03	0.07	0.79	-0.01	0.07	0.88
							Reference group					
<b>Coverage of health expenses</b>												
Private insurance	0.41	0.03	0.04	0.22	0.13	0.21	0.37	0.05	0.09	0.29	0.05	0.01
Public insurance	0.29	0.03	0.07	0.16	0.07	0.11	0.24	0.03	0.09	0.13	0.08	0.22
No insurance							Reference group					
<b>Health system ranking</b>												
Latin American ranking	-0.04	0.00	0.08	0.00	0.00	0.74	-0.03	0.00	0.01	0.00	0.00	0.44

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*High HSPC/Low SCare: Adjusted for 2 clusters / Low HSPC/High SCare: Adjusted for 4 clusters

**Exhibit 25 (continued): Stratified multiple linear regression by income comparing women in countries with higher/lower than the mean healthcare spending per capita and higher/lower than the mean satisfaction with access to healthcare.\***

VARIABLES	INCOME											
	Just sufficient – no major problems						Sufficient that can save					
	High HSPC/Low Score N=1891			Low HSPC/High Score N=2211			High HSPC/Low Score N=430			Low HSPC/High Score N=481		
City/Town size	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
0-20000 (rural)	0.12	0.06	0.28	-0.06	0.05	0.33	-0.03	0.15	0.88	-0.06	0.17	0.74
20001-100000 (peri-urban)	0.11	0.09	0.44	0.04	0.04	0.45	0.03	0.03	0.49	-0.10	0.11	0.43
100,000 + (large-urban)	0.04	0.10	0.74	-0.08	0.06	0.25	-0.08	0.02	0.14	-0.09	0.16	0.63
Capital (provincial capital)							Reference group					
<b>Year</b>												
2004							Reference group					
2005	0.13	0.14	0.52	-0.07	0.10	0.55	-0.04	0.07	0.65	-0.07	0.12	0.60
2006	0.20	0.03	0.11	0.00	0.05	0.93	0.00	0.21	0.99	-0.04	0.12	0.76
2007	-0.10	0.03	0.20	-0.06	0.09	0.55	-0.23	0.13	0.34	-0.11	0.14	0.51
<b>Age</b>												
18-25							Reference group					
26-40	-0.01	0.15	0.98	-0.01	0.05	0.80	-0.15	0.20	0.59	-0.09	0.15	0.58
41-60	0.08	0.07	0.48	0.03	0.09	0.73	-0.10	0.30	0.80	-0.16	0.17	0.41
61+	0.09	0.06	0.38	0.04	0.10	0.68	0.15	0.41	0.77	-0.28	0.08	0.04
<b>Marital status</b>												
Married or living w/partner	-0.08	0.02	0.19	0.11	0.05	0.13	-0.11	0.00	0.02	0.04	0.18	0.84
Never married							Reference group					
Separated/divorced/widower	0.06	0.04	0.35	0.12	0.07	0.17	0.07	0.27	0.83	0.41	0.16	0.09
<b>Education level</b>												

Illiterate												
Incomplete primary	-0.11	0.12	0.53	-0.03	0.08	0.74	0.15	0.09	0.33	-0.17	0.12	0.27
Complete primary	-0.20	0.16	0.44	0.01	0.08	0.92	-0.24	0.12	0.29	-0.02	0.04	0.69
Complete secondary, technical	-0.17	0.23	0.60	0.04	0.05	0.48	-0.20	0.24	0.55	-0.08	0.05	0.21
Complete university	-0.28	0.27	0.49	-0.22	0.09	0.08	-0.24	0.41	0.67	-0.04	0.13	0.79
<b>Employment</b>												
Self-employed	-0.11	0.04	0.21	-0.11	0.09	0.32	-0.09	0.12	0.58	-0.13	0.18	0.52
Salaried employee in public company							Reference group					
Salaried employee in private company	-0.16	0.01	0.03	-0.07	0.12	0.61	-0.06	0.01	0.14	0.06	0.09	0.55
Unemployed	-0.11	0.03	0.18	-0.06	0.10	0.59	0.00	0.02	0.95	0.27	0.13	0.13
Retired	-0.06	0.07	0.58	-0.18	0.13	0.27	-0.31	0.25	0.44	0.40	0.10	0.03
Don't work – responsible for housework	-0.08	0.02	0.12	-0.04	0.04	0.39	-0.12	0.07	0.36	0.09	0.22	0.70
Student	-0.20	0.12	0.35	-0.05	0.13	0.71	-0.22	0.04	0.11	0.05	0.23	0.83
<b>Chief income earner</b>												
Yes	-0.07	0.05	0.36	0.05	0.04	0.27	0.12	0.08	0.39	0.00	0.10	1.00
<b>Socioeconomic level</b>												
Very bad	0.32	0.02	0.04	-0.01	0.18	0.95	(dropped)			-0.36	0.40	0.44
Bad	0.14	0.10	0.41	-0.08	0.09	0.43	0.15	0.01	0.06	0.14	0.19	0.53
Average							Reference group					
Good	0.01	0.10	0.91	-0.02	0.02	0.42	0.04	0.06	0.62	0.08	0.04	0.12
Very good	0.10	0.08	0.45	-0.01	0.05	0.84	0.25	0.15	0.34	0.18	0.04	0.02
<b>Home characteristics</b>												
Home ownership	-0.04	0.08	0.72	-0.03	0.08	0.69	-0.08	0.05	0.35	-0.01	0.18	0.96
Drinking water	0.22	0.19	0.44	-0.07	0.05	0.29	0.35	0.11	0.19	0.02	0.18	0.91
Sewage	0.04	0.00	0.01	0.01	0.05	0.84	-0.07	0.13	0.69	0.08	0.04	0.15
TV ownership	-0.27	0.18	0.36	0.02	0.08	0.80	-0.15	0.14	0.47	-0.31	0.12	0.09
<b>Satisfaction with life</b>												
Not at all satisfied	-0.48	0.05	0.06	-0.03	0.07	0.76	-0.79	0.27	0.21	-0.20	0.52	0.73
Not very satisfied	-0.19	0.00	0.01	-0.22	0.03	0.00	-0.67	0.09	0.09	-0.22	0.13	0.18
Fairly satisfied	-0.01	0.00	0.38	-0.16	0.07	0.10	-0.31	0.04	0.08	-0.09	0.15	0.59
Very satisfied							Reference group					
<b>Health condition</b>												
Very poor	-0.21	0.67	0.81	-0.35	0.16	0.12	-0.27	0.01	0.01	-0.45	0.56	0.48
Poor	-0.29	0.02	0.04	-0.35	0.10	0.04	-0.48	0.17	0.22	-0.39	0.13	0.05
Average	-0.23	0.07	0.18	-0.32	0.09	0.04	-0.29	0.10	0.21	-0.16	0.17	0.43
Good	-0.09	0.07	0.42	-0.16	0.06	0.09	-0.23	0.05	0.13	-0.11	0.11	0.39
Very good							Reference group					
<b>Coverage of health expenses</b>												
Private insurance	0.37	0.14	0.23	0.13	0.13	0.41	0.69	0.21	0.19	-0.19	0.06	0.04
Public insurance	0.19	0.02	0.05	-0.04	0.04	0.46	0.32	0.08	0.15	-0.26	0.09	0.07
No insurance							Reference group					
<b>Health system ranking</b>												
Latin American ranking	-0.04	0.00	0.07	0.00	0.01	0.78	-0.04	0.01	0.07	-0.01	0.01	0.29

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*High HSPC/Low SCare: Adjusted for 2 clusters / Low HSPC/High SCare: Adjusted for 4 clusters

Latin American women, living in countries where healthcare spending per capita is higher than the mean while their healthcare access satisfaction is lower than the mean for the region (High HSPC/Low SCare), whose income is not sufficient and live in the rural areas are 0.28 points more satisfied with their healthcare access (SE 0.08, p=0.18), while women living in the peri-urban areas are 0.21 points more satisfied (SE 0.14, p=0.27) and those living in large urban areas are 0.09 points more satisfied (SE 0.02, p=0.15) when compared to those women living in the capital. However as women's



income increases, their satisfaction with healthcare access is somewhat reduced for rural to 0.24 (SE 0.12,  $p=0.28$ ), peri-urban 0.15 (SE 0.02,  $p=0.08$ ) and large urban 0.04 (SE 0.01,  $p=0.16$ ). Women whose income is sufficient and live in the rural areas are only 0.12 points more satisfied with their healthcare access (SE 0.06,  $p=0.28$ ), while women living in the peri-urban areas are 0.11 points more satisfied (SE 0.09,  $p=0.44$ ) and those living in the large urban areas are 0.04 points more satisfied (SE 0.10,  $p=0.74$ ), when compared to those living in the capital. In other words, the greater the income Latin American women have in these high HSPC/Low SCare countries, the less difference the location of their home makes in the healthcare access satisfaction.

For Latin American women, living in countries where healthcare spending per capita is lower than the mean while their healthcare access satisfaction is higher than the mean for the region (Low HSPC/High SCare), whose income is not sufficient and live in the rural areas are 0.03 points more satisfied with their healthcare access (SE 0.11,  $p=0.81$ ), while women living in the peri-urban areas are 0.04 points more satisfied (SE 0.04,  $p=0.44$ ) and those living in large urban areas are 0.05 points less satisfied (SE 0.06,  $p=0.49$ ) when compared to those women living in the capital. However as women's income increases they are less satisfied with their healthcare access, for rural by 0.11 points (SE 0.06,  $p=0.15$ ), peri-urban by 0.02 points (SE 0.07,  $p=0.78$ ) and large urban by 0.05 points (SE 0.06,  $p=0.47$ ). Women whose income is sufficient and live in the rural areas are less satisfied with their healthcare access by 0.06 points (SE 0.05,  $p=0.33$ ), while women living in the peri-urban areas are 0.04 points more satisfied (SE 0.04,  $p=0.45$ ) and those living in the large urban areas are 0.08 points less satisfied (SE 0.06,  $p=0.25$ ), when compared to those living in the capital. In other words, the greater the income Latin American women have in these low HSPC/High SCare countries, the less difference the location of their home makes in the healthcare access satisfaction.

Latin American women, living in countries with High HPSC/Low SCare, whose income is not sufficient and have private health insurance are 0.41 points more satisfied with their healthcare access

(SE 0.03,  $p < 0.05$ ), while women with public health insurance are 0.29 points more satisfied with their healthcare access (SE 0.03,  $p = 0.07$ ) when compared to those women with no health insurance. However as women's income increases their satisfaction with healthcare access is somewhat reduced for those with private insurance 0.37 (SE 0.05,  $p = 0.09$ ) and those with public insurance 0.24 (SE 0.03,  $p = 0.09$ ). Interestingly for those women in the highest income bracket, their healthcare access satisfaction is 0.69 points higher (SE 0.21,  $p = 0.19$ ) while public insurance increases healthcare access satisfaction by 0.32 points (SE 0.08,  $p = 0.15$ ). However, those women living in countries with Low HSPC/High SCare and whose income is not sufficient and have private health insurance are 0.22 points more satisfied with their healthcare access (SE 0.13,  $p = 0.21$ ), while women with public health insurance are 0.16 points more satisfied with their healthcare access (SE 0.07,  $p = 0.11$ ) when compared to those women with no health insurance. However as women's income increases their satisfaction with healthcare access is somewhat increased for those with private insurance 0.29 (SE 0.05,  $p < 0.01$ ) and decreased for those with public insurance to 0.13 points (SE 0.08,  $p = 0.22$ ). Interestingly for those women in the highest income bracket, their healthcare access satisfaction decreases by 0.19 points (SE 0.06,  $p < 0.05$ ) while public insurance decreases their healthcare access satisfaction by 0.26 points (SE 0.09,  $p = 0.07$ ). In other words, as income increases for Latin American women in High HSPC/Low SCare countries with private or public insurance, so does their satisfaction with healthcare access, while for women living in Low HSPC/High SCare countries with private or public health insurance, their satisfaction with healthcare access decreases as their income increases.

Generally speaking, in countries with High HSPC and Low SCare, the greater the income that women have the less difference the location of their home, education level, employment, socioeconomic status, home ownership, sewage and health status make in their healthcare access satisfaction. While the greater the income women have the greater the negative difference their marital status and owning a TV make in their healthcare access satisfaction, while the greater the

positive difference access to drinking water, satisfaction with life and having a health insurance make in their healthcare access satisfaction. Finally, the greater the income the less difference health systems' ranking makes in their healthcare access satisfaction.

Generally speaking, the greater the income for Latin American women in Low HSPC/High SCare countries, the less difference home ownership, access to drinking water, sewage, satisfaction with life, and health status make in their healthcare access satisfaction. However the greater the income these women have, the greater the negative difference the location of their home, employment, owning a TV, make and health insurance make their healthcare access satisfaction, while the greater the positive difference their marital status, education level, unemployment/household work and socioeconomic status make in their healthcare access satisfaction. Finally, the greater the income the less difference health systems' ranking makes in their healthcare access satisfaction.

2) Stratified by location of home

**Exhibit 26: Stratified multiple linear regression by city/town size comparing women in countries with higher/lower than the mean healthcare spending per capita and higher/lower than the mean satisfaction with access to healthcare.\*\*\***

VARIABLES	CITY/TOWN SIZE																	
	Rural less than 20,000						Peri-urban 20,000-100,000						Large urban and Capital >100,000					
	High HSPC/Low Score N=860			Low HSPC/High Score N=2303			High HSPC/Low Score N=1098			Low HSPC/High Score N=1786			High HSPC/Low Score N=2954			Low HSPC/High Score N=3639		
	B	SE	p	β	SE	p	β	SE	p	β	SE	p	β	SE	p	B	SE	p
<b>Household income</b>	Reference group																	
Not sufficient, major problems	-0.32	0.02	0.04	-0.27	0.04	0.01	-0.39	0.09	0.14	-0.27	0.19	0.26	-0.53	0.15	0.18	-0.45	0.10	0.02
Not sufficient, have problems	-0.09	0.12	0.58	-0.27	0.04	0.01	-0.28	0.05	0.12	-0.27	0.22	0.30	-0.40	0.13	0.20	-0.34	0.06	0.01
Just sufficient, no major problems	0.02	0.15	0.92	-0.10	0.04	0.06	-0.09	0.08	0.44	-0.07	0.24	0.78	-0.15	0.05	0.22	-0.19	0.06	0.05
Sufficient that you can save	Reference group																	
<b>Year</b>	Reference group																	
2004	Reference group																	
2005	-0.15	0.01	0.03	-0.05	0.02	0.08	0.02	0.02	0.57	-0.08	0.12	0.59	0.12	0.03	0.14	-0.05	0.04	0.37
2006	-0.12	0.10	0.43	-0.16	0.08	0.15	0.15	0.05	0.21	0.05	0.15	0.77	0.16	0.04	0.16	-0.02	0.10	0.86
2007	-0.40	0.06	0.10	-0.10	0.09	0.33	-0.20	0.06	0.19	-0.03	0.20	0.88	-0.04	0.05	0.54	-0.03	0.09	0.74
<b>Age</b>	Reference group																	
18-25	Reference group																	
26-40	-0.02	0.08	0.86	0.00	0.02	0.85	-0.09	0.08	0.49	-0.10	0.06	0.18	0.05	0.04	0.44	0.01	0.04	0.89
41-60	-0.05	0.20	0.83	-0.04	0.02	0.16	0.03	0.02	0.47	-0.07	0.06	0.34	0.07	0.05	0.37	0.01	0.04	0.91
61+	0.15	0.08	0.30	-0.16	0.03	0.02	-0.04	0.03	0.39	0.00	0.15	0.98	0.04	0.06	0.62	0.03	0.08	0.70
<b>Marital status</b>	Reference group																	
Married or living w/partner	-0.02	0.05	0.80	0.07	0.04	0.16	-0.16	0.08	0.29	0.03	0.07	0.64	-0.09	0.03	0.22	0.09	0.02	0.01
Never married	Reference group																	
Separated/divorced/widower	-0.10	0.10	0.50	0.15	0.07	0.11	-0.13	0.02	0.09	-0.02	0.07	0.74	0.02	0.07	0.85	0.01	0.04	0.82
<b>Education level</b>	Reference group																	
Illiterate	Reference group																	
Incomplete primary	-0.14	0.11	0.44	0.01	0.07	0.93	-0.20	0.01	0.04	-0.03	0.08	0.76	-0.07	0.07	0.48	-0.06	0.04	0.23
Complete primary	-0.36	0.15	0.25	-0.08	0.06	0.23	-0.40	0.02	0.03	0.06	0.03	0.15	-0.13	0.05	0.22	-0.01	0.05	0.90
Complete secondary, technical	-0.27	0.07	0.16	-0.09	0.08	0.37	-0.48	0.00	0.00	-0.06	0.05	0.32	-0.13	0.01	0.05	-0.09	0.08	0.33
Complete university	-0.24	0.39	0.65	-0.33	0.06	0.01	-0.64	0.11	0.11	-0.27	0.09	0.06	-0.14	0.02	0.10	-0.24	0.03	0.01
<b>Employment</b>	Reference group																	
Self-employed	0.04	0.04	0.47	-0.09	0.14	0.55	-0.13	0.16	0.56	0.05	0.13	0.75	-0.09	0.03	0.21	-0.03	0.06	0.65
Salaried employee in public company	Reference group																	
Salaried employee in private company	-0.06	0.23	0.84	-0.07	0.15	0.67	-0.20	0.10	0.29	-0.03	0.11	0.83	-0.10	0.06	0.33	-0.03	0.08	0.73
Unemployed	0.01	0.13	0.98	-0.18	0.13	0.26	-0.20	0.22	0.53	-0.04	0.10	0.72	-0.05	0.02	0.30	0.05	0.10	0.65
Retired	-0.01	0.18	0.95	0.02	0.13	0.90	-0.03	0.08	0.80	-0.15	0.09	0.19	0.03	0.11	0.82	-0.15	0.14	0.36
Don't work – responsible for housework	0.06	0.00	0.04	-0.08	0.13	0.59	-0.13	0.18	0.61	0.00	0.10	0.97	-0.02	0.00	0.06	0.06	0.09	0.53
Student	-0.22	0.01	0.04	-0.22	0.21	0.37	-0.28	0.03	0.08	-0.01	0.05	0.91	0.01	0.03	0.82	0.00	0.06	0.98
<b>Chief income earner</b>	Reference group																	

Yes	0.12	0.10	0.44	0.02	0.03	0.55	-0.04	0.04	0.52	-0.03	0.07	0.71	0.02	0.05	0.81	0.05	0.03	0.20
<b>Socioeconomic level</b>																		
Very bad	0.02	0.04	0.79	0.00	0.05	0.92	-0.12	0.11	0.47	-0.01	0.09	0.94	0.26	0.08	0.18	-0.12	0.06	0.15
Bad	0.02	0.09	0.82	-0.02	0.07	0.81	0.12	0.05	0.25	-0.08	0.05	0.21	-0.04	0.02	0.24	-0.08	0.07	0.30
Average	Reference group																	
Good	0.00	0.14	0.99	-0.01	0.05	0.90	0.02	0.11	0.86	-0.03	0.04	0.55	-0.01	0.04	0.92	-0.02	0.01	0.11
Very good	0.01	0.19	0.95	0.07	0.10	0.58	0.10	0.22	0.74	-0.03	0.08	0.77	0.07	0.01	0.09	0.00	0.03	0.90
<b>Home characteristics</b>																		
Home ownership	-0.10	0.04	0.26	-0.01	0.05	0.92	0.01	0.01	0.51	-0.07	0.07	0.38	-0.07	0.04	0.33	-0.02	0.03	0.48
Drinking water	-0.02	0.17	0.92	0.03	0.09	0.76	0.29	0.09	0.19	0.04	0.04	0.40	-0.09	0.11	0.58	-0.01	0.05	0.90
Sewage	0.09	0.02	0.13	0.03	0.03	0.46	-0.03	0.01	0.20	-0.05	0.02	0.11	-0.04	0.05	0.63	-0.10	0.07	0.26
TV ownership	-0.04	0.34	0.93	-0.04	0.09	0.66	-0.05	0.02	0.29	0.11	0.05	0.12	-0.15	0.13	0.46	-0.13	0.04	0.04
<b>Satisfaction with life</b>																		
Not at all satisfied	-0.46	0.12	0.16	-0.30	0.07	0.03	-0.59	0.17	0.19	-0.38	0.16	0.09	-0.55	0.17	0.19	-0.32	0.10	0.05
Not very satisfied	-0.57	0.22	0.23	-0.33	0.06	0.01	-0.20	0.05	0.14	-0.14	0.04	0.05	-0.29	0.03	0.07	-0.23	0.05	0.02
Fairly satisfied	-0.32	0.08	0.16	-0.17	0.08	0.11	-0.05	0.01	0.14	-0.09	0.05	0.20	-0.08	0.01	0.06	-0.13	0.05	0.07
Very satisfied	Reference group																	
<b>Health condition</b>																		
Very poor	-0.22	0.16	0.40	-0.34	0.11	0.05	-0.59	0.05	0.05	-0.69	0.18	0.03	-0.27	0.14	0.30	-0.41	0.25	0.19
Poor	-0.34	0.31	0.47	-0.44	0.04	0.00	-0.24	0.10	0.25	-0.40	0.07	0.01	-0.28	0.09	0.19	-0.40	0.11	0.04
Average	-0.20	0.08	0.24	-0.21	0.05	0.02	-0.18	0.02	0.07	-0.23	0.10	0.11	-0.25	0.08	0.20	-0.23	0.10	0.10
Good	-0.10	0.01	0.06	-0.07	0.07	0.39	-0.06	0.05	0.42	-0.07	0.08	0.46	-0.15	0.07	0.26	-0.07	0.06	0.38
Very good	Reference group																	
<b>Coverage of health expenses</b>																		
Private insurance	0.23	0.09	0.24	0.11	0.08	0.25	0.37	0.06	0.10	0.02	0.09	0.81	0.47	0.08	0.11	0.28	0.09	0.06
Public insurance	0.14	0.02	0.11	0.06	0.08	0.53	0.17	0.02	0.08	0.07	0.06	0.34	0.28	0.02	0.04	0.09	0.07	0.27
No insurance	Reference group																	
<b>Health system ranking</b>																		
Latin American ranking	-0.02	0.00	0.08	0.01	0.01	0.25	-0.04	0.00	0.05	0.00	0.00	0.60	-0.04	0.00	0.01	0.00	0.01	0.77

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*High HSPC/Low SCare: Adjusted for 2 clusters / Low HSPC/High SCare: Adjusted for 4 clusters

\*\*Capital dropped as Brazil survey coded it as largeurban.

Latin American women, living in countries where healthcare spending per capita is higher than the mean while their healthcare access satisfaction is lower than the mean for the region (High HPSC/Low SCare), who live in the rural areas and whose income is insufficient are 0.09 to 0.32 points less satisfied with their healthcare access (SE 0.12/0.02,  $p=0.58/p<0.05$ ), while women who live in larger urban areas are even less satisfied with their healthcare access by 0.39 to 0.53 points (SE 0.09/0.15,  $p=0.14/p=0.18$ ) when compared to those women whose income allows them to save. In addition women with sufficient income who live in the large urban and capital areas are 0.15 points less satisfied with their healthcare access (SE 0.05,  $p=0.22$ ), when compared to those women whose income allows them to save. In other words, for these high HSPC/Low SCare countries, the larger the size of the town/city in which Latin American women live the less satisfied they tend to be with their healthcare access.

Latin American women, living in countries where healthcare spending per capita is lower than the mean while their healthcare access satisfaction is higher than the mean for the region (Low HPSC/High SCare), who live in the rural areas and whose income is insufficient are 0.27 less satisfied with their healthcare access (SE 0.04,  $p<0.01$ ), while women who live in larger cities or towns are even less satisfied with their healthcare access by 0.27 to 0.45 points (SE 0.19/0.10,  $p=0.26/p<0.05$ ) when compared to those women whose income allows them to save. In addition, women with sufficient income who live in the large urban areas are 0.19 points less satisfied with their healthcare access (SE 0.06,  $p<0.05$ ), when compared to those women whose income is sufficient to be able to save. In other words, the larger the size of the town/city in which Latin American women live in these low HSPC/High SCare countries, the less satisfied they tend to be with their healthcare access.

Latin American women, living in countries with High HPSC/Low SCare, who live in rural areas and have private health insurance are 0.23 points more satisfied with their healthcare access (SE 0.09,  $p=0.24$ ), while women with public health insurance are 0.14 points more satisfied with their healthcare

access (SE 0.02,  $p=0.11$ ) when compared to those women with no health insurance. However women living in larger towns/cities who have private health insurance are 0.37 to 0.47 points more satisfied with their healthcare access (SE 0.06/0.08,  $p=0.10/p=0.11$ ) while those with public insurance are 0.17 to 0.28 points more satisfied (SE 0.02/0.02,  $p=0.08/p<0.05$ ). However, those women living in countries with Low HSPC/High SCare who live in rural areas and have private health insurance are only 0.11 points more satisfied with their healthcare access (SE 0.08,  $p=0.25$ ), while women with public health insurance are 0.06 points more satisfied with their healthcare access (SE 0.08,  $p=0.53$ ) when compared to those women with no health insurance. Women with private health insurance living in larger towns/cities are 0.02 to 0.28 more satisfied with their healthcare access (SE 0.09/0.09,  $p=0.81/p=0.06$ ) while those with public health insurance are 0.07 to 0.09 points more satisfied with their healthcare access (SE 0.06/0.07,  $p=0.34/p=0.27$ ) when compared to those women with no insurance. In other words, for countries with high HSPC/Low SCare, the larger the size of the town/city in which women live, the greater the difference health insurance makes in their overall healthcare satisfaction. However for countries with low HSPC / High SCare, the larger the size of the town/city in which women live, the less difference health insurance makes in their overall healthcare access satisfaction.

Generally speaking, for high HSPC and low SCare countries, the larger the size of the town/city in which Latin American women live the less difference age, marital status, employment, being the chief income earner, socioeconomic status, home ownership, access to drinking water, sewage, satisfaction with life and health status make in their healthcare access satisfaction. However, the larger the size of the town/city in which women live the greater the negative difference income, education level, owning a TV make in their healthcare access satisfaction, while the greater the positive difference having a health insurance make in their healthcare access satisfaction. Finally, the larger the size of the town/city the less difference health systems' ranking makes in their healthcare access satisfaction.

Generally speaking, for low HSPC and high SCare countries, the larger the size of the town/city in which Latin American women live the less difference age, marital status, education level, employment, socioeconomic status, home ownership, access to drinking water, satisfaction with life and health status make in their healthcare access satisfaction. However, the larger the size of the town/city in which women live the greater the negative difference income, being a chief income earner, sewage and owning a TV make in their healthcare access satisfaction, while the greater the positive difference unemployment/housework and having a private health make in their healthcare access satisfaction. Finally, the larger the size of the town/city the less difference health systems' ranking makes in their healthcare access satisfaction.



### 3) Stratified by health condition

**Exhibit 27: Stratified multiple linear regression by self-perceived health condition comparing women in countries with higher/lower than the mean healthcare spending per capita and higher/lower than the mean satisfaction with access to healthcare.\***

VARIABLES	HEALTH CONDITION																	
	Very poor						Poor						Average					
	High HSPC/Low Score N=101			Low HSPC/High Score N=208			High HSPC/Low Score N=440			Low HSPC/High Score N=815			High HSPC/Low Score N=1821			Low HSPC/High Score N=2932		
	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
<b>Household income</b>	Reference group																	
Not sufficient, major problems	-0.75	0.77	0.51	-0.44	0.60	0.51	-0.44	0.06	0.07	-0.35	0.25	0.26	-0.35	0.12	0.19	-0.38	0.13	0.06
Not sufficient, have problems	-0.82	0.91	0.53	-0.13	0.63	0.85	-0.13	0.12	0.23	-0.24	0.19	0.30	-0.24	0.15	0.32	-0.35	0.13	0.08
Just sufficient, no major problems	-0.26	1.50	0.89	0.02	0.68	0.98	0.02	0.02	0.07	0.04	0.26	0.88	0.04	0.09	0.46	-0.18	0.15	0.33
Sufficient that you can save	Reference group																	
<b>City/Town size</b>	Reference group																	
0-20000 (rural)	0.55	0.36	0.37	0.07	0.22	0.77	0.07	0.01	0.02	-0.17	0.06	0.07	-0.17	0.09	0.27	-0.06	0.06	0.36
20001-100000 (peri-urban)	0.05	0.05	0.50	-0.28	0.28	0.38	-0.28	0.11	0.20	-0.09	0.10	0.43	-0.09	0.01	0.05	0.01	0.07	0.91
100,000 + (large-urban)	0.23	0.01	0.04	-0.18	0.20	0.43	-0.18	0.06	0.13	-0.16	0.06	0.06	-0.16	0.04	0.54	-0.06	0.06	0.40
Capital (provincial capital)	Reference group																	
<b>Year</b>	Reference group																	
2004	Reference group																	
2005	0.51	0.44	0.45	-0.10	0.19	0.64	-0.10	0.06	0.22	0.00	0.03	0.92	0.00	0.12	0.48	-0.06	0.05	0.30
2006	0.32	0.06	0.12	0.16	0.22	0.52	0.16	0.09	0.23	0.06	0.15	0.74	0.06	0.03	0.10	-0.01	0.10	0.89
2007	0.46	0.03	0.04	0.41	0.38	0.36	0.41	0.17	0.45	0.15	0.11	0.25	0.15	0.15	0.63	-0.03	0.11	0.78
<b>Age</b>	Reference group																	
18-25	Reference group																	
26-40	-0.17	0.62	0.83	0.45	0.24	0.16	0.45	0.31	0.82	-0.04	0.11	0.75	-0.04	0.07	0.37	-0.01	0.02	0.78
41-60	-0.16	0.58	0.83	0.25	0.29	0.45	0.25	0.32	0.64	-0.11	0.10	0.34	-0.11	0.02	0.08	-0.04	0.04	0.35
61+	0.21	0.87	0.85	0.08	0.48	0.87	0.08	0.33	0.80	-0.13	0.15	0.46	-0.13	0.05	0.26	-0.05	0.11	0.69
<b>Marital status</b>	Reference group																	
Married or living w/partner	-0.76	0.41	0.31	-0.13	0.17	0.51	-0.13	0.14	0.78	-0.03	0.10	0.76	-0.03	0.06	0.44	0.11	0.02	0.02
Never married	Reference group																	
Separated/divorced/widower	-0.40	0.19	0.28	0.10	0.14	0.54	0.10	0.10	0.23	-0.04	0.11	0.73	-0.04	0.04	0.84	0.05	0.04	0.24
<b>Education level</b>	Reference group																	
Illiterate	Reference group																	
Incomplete primary	0.41	0.21	0.30	0.01	0.04	0.87	0.01	0.14	0.18	-0.10	0.17	0.58	-0.10	0.10	0.52	-0.09	0.05	0.17
Complete primary	-0.45	0.66	0.62	0.26	0.23	0.34	0.26	0.32	0.58	-0.13	0.10	0.30	-0.13	0.11	0.37	-0.15	0.09	0.19
Complete secondary, technical	0.08	0.51	0.90	0.11	0.18	0.58	0.11	0.18	0.31	-0.19	0.08	0.10	-0.19	0.02	0.10	-0.22	0.12	0.16
Complete university	0.64	0.34	0.31	0.05	0.43	0.91	0.05	0.06	0.67	0.04	0.10	0.70	0.04	0.12	0.28	-0.36	0.15	0.10
<b>Employment</b>	Reference group																	
Self-employed	0.36	0.91	0.76	-0.58	0.36	0.20	-0.58	0.24	0.61	0.17	0.20	0.46	0.17	0.08	0.30	-0.10	0.12	0.48
Salaried employee in public company	Reference group																	
Salaried employee in private	0.01	1.30	1.00	-0.10	0.19	0.63	-0.10	0.03	0.14	0.01	0.19	0.95	0.01	0.07	0.24	-0.09	0.05	0.19

company																		
Unemployed	0.00	0.97	1.00	-0.88	0.12	0.01	-0.88	0.25	0.52	0.17	0.19	0.43	0.17	0.14	0.58	-0.10	0.06	0.21
Retired	0.22	1.30	0.89	-0.53	0.31	0.18	-0.53	0.13	0.25	-0.25	0.10	0.08	-0.25	0.18	0.71	0.01	0.21	0.98
Don't work – responsible for housework	0.47	1.30	0.78	-0.53	0.22	0.10	-0.53	0.24	0.46	0.06	0.20	0.77	0.06	0.10	0.39	-0.07	0.11	0.56
Student	0.36	1.96	0.89	-0.25	0.55	0.69	-0.25	0.09	0.06	-0.04	0.22	0.87	-0.04	0.17	0.49	0.11	0.11	0.39
<b>Chief income earner</b>																		
Yes	-0.21	0.47	0.73	0.05	0.29	0.88	0.05	0.18	0.35	-0.10	0.13	0.52	-0.10	0.05	0.63	0.04	0.04	0.43
<b>Socioeconomic level</b>																		
Very bad	0.26	0.50	0.69	-0.27	0.45	0.59	-0.27	0.07	0.12	-0.34	0.11	0.05	-0.34	0.17	0.79	-0.07	0.14	0.66
Bad	-0.03	0.00	0.09	-0.22	0.25	0.45	-0.22	0.14	0.94	-0.07	0.08	0.46	-0.07	0.03	0.68	-0.11	0.06	0.15
Average										Reference group								
Good	-0.37	0.33	0.47	-0.11	0.12	0.44	-0.11	0.16	0.84	-0.16	0.04	0.04	-0.16	0.06	0.53	-0.03	0.03	0.37
Very good	-0.75	0.59	0.43	0.12	0.30	0.71	0.12	0.02	0.61	-0.08	0.17	0.68	-0.08	0.04	0.31	-0.10	0.05	0.13
<b>Home characteristics</b>																		
Home ownership	0.21	0.38	0.67	-0.11	0.03	0.04	-0.11	0.00	0.09	0.01	0.11	0.91	0.01	0.01	0.08	-0.04	0.03	0.20
Drinking water	0.12	0.19	0.65	0.08	0.22	0.74	0.08	0.03	0.05	0.01	0.08	0.91	0.01	0.20	0.84	0.02	0.04	0.72
Sewage	0.35	0.11	0.20	-0.10	0.21	0.65	-0.10	0.04	0.16	-0.01	0.07	0.85	-0.01	0.04	0.90	-0.09	0.04	0.12
TV ownership	0.56	0.25	0.26	-0.11	0.07	0.24	-0.11	0.00	0.01	-0.06	0.12	0.66	-0.06	0.07	0.22	-0.01	0.04	0.83
<b>Satisfaction with life</b>																		
Not at all satisfied	-0.85	0.35	0.25	-0.63	0.09	0.01	-0.63	0.10	0.14	-0.26	0.08	0.06	-0.26	0.34	0.37	-0.41	0.11	0.04
Not very satisfied	-0.94	0.58	0.35	-0.60	0.27	0.12	-0.60	0.13	0.22	-0.29	0.05	0.01	-0.29	0.18	0.35	-0.21	0.05	0.02
Fairly satisfied	-0.41	0.68	0.65	-0.34	0.05	0.01	-0.34	0.05	0.12	-0.17	0.09	0.16	-0.17	0.05	0.58	-0.13	0.04	0.06
Very satisfied										Reference group								
<b>Coverage of health expenses</b>																		
Private insurance	0.12	0.07	0.33	-0.14	0.28	0.65	-0.14	0.00	0.04	0.29	0.10	0.06	0.29	0.07	0.09	0.24	0.08	0.07
Public insurance	-0.20	0.03	0.10	-0.10	0.11	0.43	-0.10	0.06	0.36	0.11	0.09	0.30	0.11	0.05	0.10	0.12	0.07	0.19
No insurance										Reference group								
<b>Health system ranking</b>																		
Latin American ranking	-0.04	0.00	0.01	0.00	0.00	0.51	0.00	0.00	0.09	0.01	0.00	0.01	0.01	0.00	0.04	0.00	0.01	0.82

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*High HSPC/Low SCare: Adjusted for 2 clusters / Low HSPC/High SCare: Adjusted for 4 clusters

**Exhibit 27 (continued): Stratified multiple linear regression by self-perceived health condition comparing women in countries with higher/lower than the mean healthcare spending per capita and higher/lower than the mean satisfaction with access to healthcare.\***

VARIABLES	HEALTH CONDITION											
	Good						Very good					
	High HSPC/Low Score N=2064			Low HSPC/High Score N=2911			High HSPC/Low Score N=486			Low HSPC/High Score N=862		
	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
<b>Household income</b>												
Not sufficient, major problems	-0.46	0.02	0.03	-0.29	0.11	0.09	-0.33	0.17	0.31	-0.29	0.11	0.07
Not sufficient, have problems	-0.28	0.00	0.01	-0.30	0.12	0.09	-0.54	0.09	0.11	-0.32	0.07	0.02
Just sufficient, no major problems	-0.06	0.03	0.29	-0.15	0.08	0.14	-0.26	0.15	0.35	-0.04	0.09	0.69
Sufficient that you can save							Reference group					
<b>City/Town size</b>												
0-20000 (rural)	0.14	0.11	0.43	-0.04	0.03	0.29	0.08	0.08	0.51	-0.11	0.07	0.23
20001-100000 (peri-urban)	0.10	0.02	0.11	0.05	0.00	0.00	0.02	0.06	0.75	-0.07	0.06	0.35
100,000 + (large-urban)	-0.03	0.06	0.69	-0.02	0.05	0.76	-0.02	0.06	0.75	-0.18	0.07	0.09
Capital (provincial capital)							Reference group					
<b>Year</b>												
2004							Reference group					
2005	-0.05	0.00	0.05	-0.11	0.07	0.25	0.17	0.13	0.42	-0.02	0.14	0.90
2006	0.03	0.05	0.71	-0.10	0.06	0.18	0.24	0.07	0.17	-0.02	0.26	0.94
2007	-0.21	0.03	0.08	-0.10	0.09	0.35	-0.16	0.12	0.40	-0.09	0.20	0.66
<b>Age</b>												
18-25							Reference group					
26-40	-0.02	0.03	0.71	-0.03	0.04	0.45	-0.24	0.05	0.13	-0.08	0.11	0.53
41-60	0.02	0.04	0.68	0.05	0.03	0.19	-0.16	0.19	0.55	-0.20	0.18	0.35
61+	0.14	0.17	0.57	0.05	0.04	0.37	-0.45	0.11	0.15	-0.04	0.13	0.79
<b>Marital status</b>												
Married or living w/partner	-0.05	0.03	0.33	0.09	0.03	0.07	-0.12	0.05	0.23	0.06	0.04	0.29
Never married							Reference group					
Separated/divorced/widower	-0.02	0.02	0.46	0.07	0.04	0.18	0.25	0.18	0.39	0.07	0.11	0.55
<b>Education level</b>												
Illiterate							Reference group					
Incomplete primary	-0.02	0.08	0.84	0.05	0.10	0.67	-0.09	0.14	0.63	0.08	0.19	0.69
Complete primary	-0.17	0.11	0.37	0.03	0.07	0.68	-0.47	0.15	0.19	0.48	0.20	0.09
Complete secondary, technical	-0.18	0.07	0.23	-0.01	0.10	0.96	-0.39	0.35	0.46	0.40	0.14	0.06
Complete university	-0.12	0.05	0.27	-0.16	0.10	0.21	-0.53	0.51	0.49	-0.02	0.23	0.94
<b>Employment</b>												
Self-employed	-0.04	0.06	0.63	-0.03	0.11	0.80	-0.19	0.01	0.02	0.22	0.14	0.22
Salaried employee in public company							Reference group					
Salaried employee in private company	-0.11	0.03	0.15	-0.01	0.15	0.97	0.03	0.17	0.90	0.02	0.15	0.88
Unemployed	-0.06	0.01	0.15	0.05	0.11	0.65	-0.16	0.02	0.10	0.09	0.14	0.59
Retired	0.06	0.08	0.56	-0.24	0.14	0.18	0.07	0.15	0.71	-0.11	0.24	0.67
Don't work – responsible for housework	-0.05	0.01	0.18	0.05	0.11	0.71	0.13	0.12	0.47	0.26	0.14	0.16
Student	-0.04	0.10	0.72	-0.12	0.11	0.36	-0.25	0.00	0.01	0.03	0.06	0.72
<b>Chief income earner</b>												
Yes	0.03	0.09	0.83	-0.04	0.06	0.54	0.00	0.03	0.91	0.26	0.07	0.03
<b>Socioeconomic level</b>												
Very bad	0.17	0.25	0.61	0.19	0.11	0.19	0.37	0.26	0.39	0.24	0.24	0.38
Bad	0.05	0.08	0.68	-0.03	0.05	0.66	-0.15	0.19	0.58	-0.02	0.17	0.89
Average							Reference group					
Good	-0.03	0.12	0.84	0.04	0.04	0.39	-0.11	0.06	0.30	0.01	0.06	0.82
Very good	0.00	0.19	0.99	0.07	0.10	0.56	0.15	0.06	0.25	0.10	0.15	0.55
<b>Home characteristics</b>												
Home ownership	-0.06	0.04	0.36	-0.04	0.04	0.44	-0.02	0.00	0.05	0.08	0.08	0.43
Drinking water	0.06	0.11	0.70	0.02	0.10	0.85	0.59	0.14	0.15	0.01	0.13	0.93
Sewage	-0.03	0.03	0.45	-0.03	0.05	0.62	0.00	0.14	0.98	0.01	0.05	0.88
TV ownership	-0.02	0.23	0.96	-0.03	0.06	0.61	-0.29	0.37	0.58	-0.18	0.18	0.39
<b>Satisfaction with life</b>												
Not at all satisfied	-0.69	0.00	0.01	-0.28	0.23	0.31	-0.28	0.02	0.05	-0.13	0.39	0.75

Not very satisfied	-0.31	0.05	0.10	-0.20	0.04	0.01	-0.26	0.05	0.11	-0.30	0.08	0.03
Fairly satisfied	-0.14	0.01	0.06	-0.11	0.04	0.06	-0.01	0.10	0.96	-0.17	0.07	0.10
Very satisfied												
Reference group												
<b>Coverage of health expenses</b>												
Private insurance	0.38	0.11	0.18	0.16	0.08	0.14	0.89	0.33	0.23	0.09	0.13	0.54
Public insurance	0.20	0.01	0.02	0.04	0.03	0.30	0.63	0.10	0.10	-0.03	0.07	0.74
No insurance												
Reference group												
<b>Health system ranking</b>												
Latin American ranking	-0.03	0.00	0.03	0.00	0.01	0.59	-0.04	0.01	0.11	0.00	0.01	0.99

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*High HSPC/Low SCare: Adjusted for 2 clusters / Low HSPC/High SCare: Adjusted for 4 clusters

Latin American women, living in countries where healthcare spending per capita is higher than the mean while their healthcare access satisfaction is lower than the mean for the region (High HPSC/Low SCare), whose health status is poor and have insufficient income are 0.44 to 0.75 points less satisfied with their healthcare access (SE 0.06/0.77,  $p=0.07/p=0.51$ ), However those women whose health status is good and very good and have insufficient income are 0.33 to 0.46 points less satisfied with their healthcare access (SE 0.17/0.02,  $p=0.31/p<0.05$ ), while those women whose incomes is just sufficient are 0.06 to 0.26 points less satisfied (SE 0.03/0.15,  $p=0.29/p=0.35$ ) when compared to those whose income allows them to save. In other words, for countries with high HSPC/Low SCare, women's health condition has a significant impact on their healthcare access satisfaction when comparing different levels of income.

Latin American women, living in countries where healthcare spending per capita is lower than the mean while their healthcare access satisfaction is higher than the mean for the region (Low HPSC/High SCare), whose health status is poor and have insufficient income are 0.35 to 0.44 points less satisfied with their healthcare access (SE 0.25/0.60,  $p=0.26/p=0.51$ ). However those women whose health status is good and very good and have insufficient income are 0.29 points less satisfied with their healthcare access (SE 0.11,  $p=0.07$ ), while those women whose incomes is just sufficient are 0.04 to 0.15 points less satisfied (SE 0.09/0.08,  $p=0.69/p=0.14$ ) when compared to those whose income allows them to save. In other words, for countries with low HSPC/High SCare, women's health condition has a significant impact on their healthcare access satisfaction when comparing different levels of income.

Women in countries with high HSPC/Low SCare and whose health status is very poor and live in rural areas, are 0.55 points more satisfied with their healthcare access (SE 0.36,  $p=0.37$ ), while those living in peri-urban areas are 0.05 points more satisfied (SE 0.05,  $p=0.50$ ) and those living in large urban areas are 0.23 points more satisfied (SE 0.01,  $p<0.05$ ) when compared to those women living in the capital in very poor health condition. Women who live in rural areas and whose health condition is poor are 0.07 points more satisfied with their healthcare access (SE 0.01,  $p<0.05$ ), while those living in peri-urban areas are 0.28 points less satisfied (SE 0.11,  $p=0.20$ ) and those living in large urban areas are 0.18 points less satisfied (SE 0.06,  $p=0.13$ ) when compared to those women living in the capital in very poor health condition. However, women whose health status is very good and live in rural areas are 0.08 points more satisfied with their healthcare access (SE 0.08,  $p=0.51$ ), while those living in the peri-urban areas are 0.02 points more satisfied (SE 0.06,  $p=0.75$ ) and those living in the large urban areas are 0.02 points less satisfied (SE 0.06,  $p=0.75$ ). In other words, for countries with high HSPC/Low SCare, women's health condition has a significant impact on their healthcare access satisfaction when comparing the location of their home.

For women in countries with low HSPC/high SCare and whose health status is very poor and live in rural areas are 0.07 points more satisfied with their healthcare access (SE 0.22,  $p=0.77$ ), while those living in peri-urban areas are 0.28 points less satisfied (SE 0.28,  $p=0.38$ ) and those living in large urban areas are 0.18 points less satisfied (SE 0.20,  $p=0.43$ ) when compared to those women living in the capital in very poor health condition. Women who live in rural areas and whose health condition is poor are 0.17 points less satisfied with their healthcare access (SE 0.06,  $p=0.07$ ), while those living in peri-urban areas are 0.09 points less satisfied (SE 0.10,  $p=0.43$ ) and those living in large urban areas are 0.16 points less satisfied (SE 0.06,  $p=0.06$ ) when compared to those women living in the capital in very poor health condition. However, women whose health status is very good and live in rural areas are 0.11 points less satisfied with their healthcare access (SE 0.07,  $p=0.23$ ), while those living in the peri-urban areas are

0.07 points less satisfied (SE 0.06,  $p=0.35$ ) and those living in the large urban areas are 0.18 points less satisfied (SE 0.07,  $p=0.09$ ). In other words, for countries with low HSPC/High SCare, women's health condition has a significant impact on their healthcare access satisfaction when comparing the location of their home.

Latin American women, living in countries with High HPSC/Low SCare, whose health condition is poor and have private health insurance are 0.14 points less satisfied with their healthcare access (SE 0.00,  $p<0.05$ ), while women with public health insurance are 0.10 points less satisfied with their healthcare access (SE 0.06,  $p=0.36$ ) when compared to those women with no health insurance. However women with good and very good health condition who have private health insurance are 0.38 to 0.89 points more satisfied with their healthcare access (SE 0.11/0.33,  $p=0.18/p=0.23$ ) while women with public health insurance are 0.20 to 0.63 points more satisfied (SE 0.01/0.10,  $p<0.05/p=0.10$ ) when compared to those women with no insurance. However, those women living in countries with Low HSPC/High SCare whose health condition is poor and have private health insurance are 0.29 points more satisfied with their healthcare access (SE 0.10,  $p=0.06$ ), while women with public health insurance are 0.11 points more satisfied (SE 0.09,  $p=0.30$ ) when compared to those women with no health insurance. However, women with good and very good health condition who have private health insurance are 0.09 to 0.16 points more satisfied with their healthcare access (SE 0.13/0.08,  $p=0.54/p=0.14$ ) while women with public health insurance are 0.04 points more satisfied (SE 0.03,  $p=0.30$ ) when compared to those women with no insurance. In other words, for countries with high HSPC/Low SCare, the better the health condition of women, the greater the difference health insurance makes in their overall healthcare satisfaction. However for countries with low HSPC / High SCare, the better the health condition of women, the less difference health insurance makes in their healthcare access satisfaction.

Generally speaking, for high HSPC and low SCare countries, the better the health condition of Latin American women live the less difference income, location of home, marital status, socioeconomic

status, sewage, make in their healthcare access satisfaction. However the better the health condition women have the greater the negative difference age, education level, employment, unemployment, home ownership and owning a TV make in their healthcare access satisfaction, while the greater the positive difference being a chief income earner, access to drinking water, satisfaction with life and health insurance make in their healthcare access satisfaction. Finally, the better the health condition women have the less difference health systems' ranking makes in their healthcare access satisfaction.

Generally speaking, for low HSPC and high SCare countries, the better the health condition of Latin American women live the less the difference income, location of their home, marital status, home ownership, having access to drinking water, sewage, owning a TV make in their healthcare access satisfaction. However the better the health condition women have the greater the negative difference age makes in their healthcare access satisfaction, while the greater the positive difference their education, employment, unemployment/housework, being the chief income earner, socioeconomic status, satisfaction with life and health insurance make in their healthcare access satisfaction. Finally, the better the health condition women have the less difference health systems' ranking makes in their healthcare access satisfaction.

#### 4) Stratified by health insurance

**Exhibit 28: Stratified multiple linear regression by health insurance type comparing women in countries with higher/lower than the mean healthcare spending per capita and higher/lower than the mean satisfaction with access to healthcare.\***

VARIABLES	TYPE OF INSURANCE																	
	None						Public						Private					
	High HSPC/Low Score N=427			Low HSPC/High Score N=3759			High HSPC/Low Score N=3482			Low HSPC/High Score N=2494			High HSPC/Low Score N=1003			Low HSPC/High Score N=1475		
	β	SE	p	β	SE	p	β	SE	p	β	SE	p	β	SE	P	β	SE	p
<b>Household income</b>	Reference group																	
Not sufficient, major problems	-0.69	0.32	0.28	-0.51	0.15	0.04	-0.37	0.01	0.02	-0.21	0.07	0.06	-0.49	0.16	0.20	-0.39	0.05	0.00
Not sufficient, have problems	-0.26	0.20	0.41	-0.46	0.15	0.05	-0.22	0.00	0.00	-0.22	0.04	0.02	-0.43	0.16	0.23	-0.24	0.10	0.11
Just sufficient, no major problems	0.05	0.23	0.88	-0.24	0.12	0.13	-0.03	0.03	0.48	-0.10	0.03	0.05	-0.20	0.11	0.31	-0.08	0.09	0.43
Sufficient that you can save	Reference group																	
<b>City/Town size</b>	Reference group																	
0-20000 (rural)	0.17	0.17	0.49	0.01	0.07	0.85	0.22	0.13	0.33	-0.08	0.04	0.14	-0.03	0.05	0.63	-0.12	0.07	0.16
20001-100000 (peri-urban)	0.15	0.02	0.07	0.07	0.07	0.40	0.17	0.01	0.03	0.03	0.06	0.59	-0.09	0.04	0.28	-0.13	0.07	0.16
100,000 + (large-urban)	0.05	0.13	0.76	-0.02	0.04	0.72	0.08	0.06	0.40	-0.05	0.06	0.49	-0.16	0.00	0.00	-0.05	0.05	0.40
Capital (provincial capital)	Reference group																	
<b>Year</b>	Reference group																	
2004	Reference group																	
2005	0.00	0.01	0.97	-0.08	0.04	0.15	0.10	0.04	0.27	-0.11	0.05	0.14	-0.01	0.05	0.91	-0.05	0.11	0.69
2006	0.13	0.02	0.09	-0.15	0.11	0.26	0.13	0.03	0.13	0.04	0.08	0.65	0.05	0.15	0.79	0.01	0.11	0.93
2007	0.00	0.17	0.98	-0.10	0.12	0.46	-0.17	0.08	0.27	0.01	0.09	0.94	-0.12	0.06	0.30	-0.05	0.10	0.62
<b>Age</b>	Reference group																	
18-25	Reference group																	
26-40	0.12	0.04	0.21	0.01	0.02	0.67	-0.01	0.06	0.87	-0.03	0.04	0.60	-0.06	0.00	0.03	-0.10	0.04	0.10
41-60	0.06	0.09	0.63	0.01	0.03	0.72	0.03	0.00	0.02	-0.10	0.03	0.05	0.00	0.06	0.96	-0.02	0.06	0.79
61+	-0.14	0.21	0.63	-0.04	0.06	0.56	0.02	0.01	0.39	0.02	0.03	0.61	0.13	0.09	0.37	-0.15	0.15	0.40
<b>Marital status</b>	Reference group																	
Married or living w/partner	-0.18	0.05	0.18	0.06	0.02	0.08	-0.04	0.03	0.49	0.06	0.04	0.25	-0.16	0.07	0.27	0.12	0.07	0.18
Never married	Reference group																	
Separated/divorced/widower	-0.01	0.06	0.89	0.03	0.08	0.74	0.01	0.05	0.84	0.00	0.07	0.99	-0.09	0.08	0.45	0.15	0.05	0.06
<b>Education level</b>	Reference group																	
Illiterate	Reference group																	
Incomplete primary	-0.16	0.05	0.20	-0.07	0.06	0.30	-0.16	0.08	0.29	0.05	0.09	0.64	0.25	0.36	0.61	-0.08	0.18	0.69
Complete primary	-0.21	0.02	0.05	-0.06	0.01	0.01	-0.31	0.06	0.11	0.05	0.12	0.73	0.19	0.31	0.65	-0.02	0.21	0.92
Complete secondary, technical	-0.29	0.07	0.16	-0.07	0.05	0.25	-0.28	0.00	0.00	-0.08	0.14	0.61	0.13	0.41	0.80	-0.11	0.20	0.64
Complete university	-0.17	0.16	0.49	-0.35	0.08	0.03	-0.31	0.04	0.08	-0.25	0.15	0.18	0.08	0.41	0.88	-0.21	0.22	0.41
<b>Employment</b>	Reference group																	
Self-employed	-0.49	0.34	0.38	-0.16	0.08	0.13	-0.12	0.01	0.08	-0.11	0.17	0.55	-0.01	0.10	0.96	0.15	0.02	0.00
Salaried employee in public company	Reference group																	
Salaried employee in private	-0.85	0.29	0.21	-0.03	0.08	0.74	-0.15	0.07	0.28	-0.16	0.21	0.52	0.00	0.02	0.97	0.06	0.09	0.55



company																		
Unemployed	-0.57	0.40	0.39	-0.20	0.11	0.16	-0.08	0.02	0.16	-0.15	0.09	0.20	0.00	0.06	0.99	0.42	0.02	0.00
Retired	-0.46	0.41	0.47	-0.41	0.19	0.12	-0.02	0.08	0.83	-0.19	0.18	0.35	0.10	0.09	0.46	0.14	0.12	0.33
Don't work – responsible for housework	-0.41	0.33	0.43	-0.11	0.05	0.12	-0.09	0.03	0.20	-0.11	0.17	0.55	0.02	0.00	0.11	0.25	0.07	0.04
Student	-0.46	0.26	0.33	-0.14	0.09	0.23	-0.13	0.01	0.03	-0.31	0.16	0.15	-0.06	0.10	0.65	0.29	0.05	0.01
<b>Chief income earner</b>																		
Yes	0.06	0.15	0.75	0.05	0.05	0.39	0.03	0.05	0.69	-0.04	0.02	0.20	-0.05	0.13	0.75	0.08	0.03	0.11
<b>Socioeconomic level</b>																		
Very bad	0.45	0.11	0.15	-0.10	0.02	0.02	0.00	0.08	1.00	0.11	0.17	0.55	0.33	0.24	0.40	-0.02	0.25	0.94
Bad	-0.02	0.02	0.48	-0.07	0.07	0.37	0.00	0.07	1.00	-0.02	0.06	0.78	-0.09	0.09	0.50	-0.18	0.14	0.30
Average																		
Good	0.05	0.18	0.83	-0.06	0.06	0.44	-0.02	0.05	0.75	0.02	0.01	0.03	0.04	0.11	0.78	-0.04	0.02	0.13
Very good	0.14	0.26	0.70	-0.01	0.09	0.89	-0.10	0.09	0.46	0.02	0.12	0.85	0.23	0.09	0.24	-0.03	0.02	0.26
<b>Home characteristics</b>																		
Home ownership	-0.18	0.14	0.43	-0.06	0.04	0.27	-0.05	0.02	0.23	0.01	0.01	0.49	-0.03	0.05	0.65	-0.01	0.10	0.89
Drinking water	-0.35	0.20	0.34	-0.01	0.03	0.71	0.09	0.14	0.62	0.03	0.12	0.82	0.19	0.17	0.46	0.08	0.11	0.52
Sewage	0.00	0.06	0.99	-0.04	0.04	0.39	-0.01	0.00	0.15	-0.09	0.07	0.29	0.21	0.06	0.17	0.07	0.12	0.63
TV ownership	-0.24	0.12	0.31	-0.01	0.03	0.89	-0.09	0.16	0.69	-0.04	0.06	0.52	-0.28	0.17	0.35	-0.21	0.13	0.19
<b>Satisfaction with life</b>																		
Not at all satisfied	-0.54	0.25	0.28	-0.35	0.13	0.08	-0.53	0.17	0.20	-0.40	0.10	0.03	-0.79	0.25	0.20	0.14	0.23	0.60
Not very satisfied	-0.32	0.03	0.06	-0.27	0.06	0.02	-0.33	0.02	0.05	-0.18	0.05	0.03	-0.22	0.03	0.09	-0.24	0.06	0.02
Fairly satisfied	-0.17	0.15	0.46	-0.16	0.03	0.02	-0.10	0.01	0.07	-0.10	0.03	0.05	-0.13	0.02	0.08	-0.16	0.05	0.04
Very satisfied																		
<b>Health condition</b>																		
Very poor	0.44	0.31	0.40	-0.48	0.12	0.03	-0.39	0.08	0.12	-0.45	0.13	0.05	-0.32	0.27	0.45	-0.56	0.20	0.07
Poor	0.29	0.34	0.55	-0.46	0.09	0.01	-0.32	0.06	0.11	-0.39	0.10	0.03	-0.46	0.15	0.20	-0.33	0.07	0.02
Average	0.12	0.33	0.78	-0.30	0.10	0.07	-0.24	0.03	0.07	-0.20	0.07	0.07	-0.22	0.13	0.34	-0.21	0.11	0.16
Good	0.30	0.27	0.48	-0.10	0.10	0.37	-0.14	0.00	0.02	-0.05	0.07	0.54	-0.14	0.05	0.23	-0.07	0.05	0.30
Very good																		
<b>Health system ranking</b>																		
Latin American ranking	-0.03	0.01	0.14	0.01	0.01	0.45	-0.04	0.00	0.00	0.00	0.00	0.79	-0.03	0.00	0.09	-0.01	0.00	0.15

Source: Latinobarometro survey 2004, 2005, 2006, 2007

\*High HSPC/Low SCare: Adjusted for 2 clusters and Low HSPC/High SCare: Adjusted for 4 clusters

Latin American women, living in countries where healthcare spending per capita is higher than the mean while their healthcare access satisfaction is lower than the mean for the region (High HPSC/Low SCare), with no health insurance and whose income was not sufficient were 0.26 to 0.69 points less satisfied with their healthcare access (SE 0.20/0.32,  $p=0.41/p=0.28$ ), while those women who had sufficient income were 0.05 points more satisfied with their healthcare access (SE 0.23,  $p=0.88$ ), when compared to women who had no insurance and whose income allowed them to save. Women with public health insurance and whose income was not sufficient were 0.22 to 0.37 points less satisfied with their healthcare access (SE 0.00/0.01,  $p<0.05/ p<0.01$ ), while those women who had sufficient income were 0.03 points less satisfied with their healthcare access (SE 0.03,  $p=0.48$ ), when compared to women who had public insurance and whose income allowed them to save. Women who had private insurance and whose income was not sufficient were 0.43 to 0.49 points less satisfied with their healthcare access (SE 0.16/0.16,  $p=0.23/p=0.20$ ), while women whose income was sufficient were 0.20 points less satisfied with their healthcare access (SE 0.11,  $p=0.31$ ), when compared to those women who had private insurance and whose income allowed them to save. In other words, for women living in high HSPC/Low SCare countries, the better their health insurance (private) the less difference income had in their overall healthcare satisfaction.

Latin American women, living in countries where healthcare spending per capita is lower than the mean while their healthcare access satisfaction is higher than the mean for the region (Low HPSC/High SCare), with no health insurance and whose income was not sufficient were 0.46 to 0.51 points less satisfied with their healthcare access (SE 0.15/0.15,  $p<0.05/ p<0.05$ ), while those women who had sufficient income were 0.24 points more satisfied with their healthcare access (SE 0.12,  $p=0.13$ ), when compared to women who had no insurance and whose income allowed them to save. Women with public health insurance and whose income was not sufficient were 0.22 points less satisfied with their healthcare access (SE 0.04,  $p<0.05$ ), while those women who had sufficient income were 0.10

points less satisfied with their healthcare access (SE 0.03,  $p < 0.05$ ), when compared to women who had public insurance and whose income allowed them to save. Women who had private insurance and whose income was not sufficient were 0.24 to 0.39 points less satisfied with their healthcare access (SE 0.10/0.05,  $p = 0.11 / p < 0.01$ ), while women whose income was sufficient were 0.08 points less satisfied with their healthcare access (SE 0.09,  $p = 0.43$ ), when compared to those women who had private insurance and whose income allowed them to save. In other words, for women living in low HSPC/High SCare countries, the better their health insurance (private) the less difference income had in their overall healthcare satisfaction.

Latin American women, living in countries High HPSC/Low SCare countries, who had no insurance and lived in the rural and peri-urban areas were 0.15 to 0.17 points more satisfied with their healthcare access (SE 0.02/0.17,  $p = 0.07 / p = 0.49$ ), while those living in the large urban areas were 0.05 points more satisfied (SE 0.13,  $p = 0.76$ ), when compared to those women with no insurance living in the capital. Those women with public health insurance living in the rural, peri-urban and large urban areas were 0.08 to 0.22 points more satisfied with their healthcare access (SE 0.06/0.01/0.13,  $p = 0.40 / p = < 0.05 / p = 0.33$ ) when compared to those women with public insurance living in the capital. Interestingly, women with private health insurance living in the rural areas were 0.03 points less satisfied with their healthcare access (SE 0.05,  $p = 0.63$ ), and those living in the peri-urban areas were 0.09 points less satisfied (SE 0.04,  $p = 0.28$ ), while those living in the large urban areas were 0.16 points less satisfied (SE 0.00,  $p < 0.01$ ), when compared to those women with private health insurance living in the capital. In general, for countries with high HSPC/Low SCare, women in the rural and peri-urban areas seem to be more satisfied with their healthcare access be they insured or not.

Furthermore, women living in low HSPC/High SCare countries, who had no insurance and lived in the rural and peri-urban areas were 0.01 to 0.07 points more satisfied with their healthcare access (SE 0.07/0.07,  $p = 0.85 / p = 0.40$ ), while those living in the large urban areas were 0.02 points less satisfied (SE

0.04,  $p=0.72$ ), when compared to those women with no insurance living in the capital. Those women with public health insurance living in the rural and large urban areas were 0.05 to 0.08 points less satisfied with their healthcare access (SE 0.06/0.04,  $p=0.49/p=0.14$ ) when compared to those women with public insurance living in the capital. Interestingly, women with private health insurance living in the rural areas were 0.12 points less satisfied with their healthcare access (SE 0.07,  $p=0.16$ ), and those living in the peri-urban areas were 0.13 points less satisfied (SE 0.07,  $p=0.16$ ), while those living in the large urban areas were 0.05 points less satisfied (SE 0.05,  $p=0.40$ ), when compared to those women with private health insurance living in the capital. In general, for countries with low HSPC/High SCare, women in the rural and peri-urban areas seem to be more satisfied with their healthcare access be they insured or not, except when they have private insurance.

Generally speaking, for high HSPC and low SCare countries, the better the health insurance Latin American women have the less difference marital status, being the chief income earner, socioeconomic status, home ownership and owning a TV make in their healthcare access satisfaction. However, the better the health insurance women have the greater the negative difference income, location of their home, age, satisfaction with life and health condition make in their healthcare access satisfaction while the greater positive difference education, employment, having access to drinking water, sewage, make in their healthcare access satisfaction. Finally, the better the health insurance women have the less difference health systems' ranking makes in their healthcare access satisfaction.

Generally speaking, for low HSPC and high SCare countries, the better the health insurance Latin American women have the less difference income, location of their home, marital status, education, being the chief income earner, socioeconomic status, home ownership, having access to drinking water, sewage, satisfaction with life and health status make in their healthcare access satisfaction. However the better the health insurance women have the greater the negative difference age and owning a TV make in their healthcare access satisfaction while the greater the positive difference employment make

in their healthcare access satisfaction. Finally, the better the health insurance women have the less difference health systems' ranking makes in their healthcare access satisfaction.

a) Summary of results

The results of the stratification models by healthcare spending per capita and healthcare access satisfaction levels can be summarized as follows:

i. *Stratification by income:* Results show that the greater the income Latin American women have in those countries with higher than average healthcare spending per capita (high HSPC) and lower than average healthcare access satisfaction (low SCare) as well as those countries with lower than average healthcare spending per capita (low HSPC) and higher than average healthcare access satisfaction (high SCare), the less difference the location of their home makes in the healthcare access satisfaction. However, as income increases for Latin American women in High HSPC/Low SCare countries with private or public insurance, so does their satisfaction with healthcare access, while for those women living in Low HSPC/High SCare countries with private or public health insurance, their satisfaction with healthcare access decreases as their income increases.

ii. *Stratification by location of home:* For those Latin American women living in high HSPC/Low SCare countries as well as those living in low HSPC/High SCare, the larger the size of the town/city in which they live, the less satisfied they tend to be with their healthcare access. In addition, for countries with high HSPC/Low SCare, the larger the size of the town/city in which women live the greater the difference health insurance makes in their overall healthcare satisfaction, while for countries with low HSPC / High SCare, the larger the size of the town/city in which women live, the less difference health insurance makes in their overall healthcare access satisfaction.

iii. *Stratification by health condition:* For countries with high HSPC/Low SCare and low HSPC/High SCare, women's health condition has a significant impact on their healthcare access satisfaction

when comparing different levels of income as well as the location of their home. In addition, for countries with high HSPC/Low Score, the better the health condition of women, the greater the difference health insurance makes in their overall healthcare satisfaction while for countries with low HSPC / High Score, the better the health condition of women, the less difference health insurance makes in their healthcare access satisfaction.

iv. *Stratification by health insurance*: For women living in both high HSPC/Low Score and low HSPC/High Score countries, the better their health insurance (private) the less difference income has in their overall healthcare satisfaction. In addition, women in these countries living in the rural and peri-urban areas seem to be more satisfied with their healthcare access be they insured or not.

h) Stratifications by health condition and regressors of interest

As women in poorer health will tend to access healthcare services more often and, therefore, experience these services firsthand, having a more current perception of their satisfaction, further analyses of the key stratification variables will be made. These analyses will focus on the differences for those women in very poor and poor health versus those in very poor, poor and average health by the key stratification variables (income, location of home and health insurance). Furthermore, as results of the stratification by health condition in the previous section showed a diminished effect of the country fixed effect (country specific average variation) further analyses on these strata will help in increasing our understanding of the magnitude and effect of these key variables on women's healthcare access satisfaction.

## 1) Stratified by income

**Exhibit 29: Stratified multiple linear regression by income comparing women in Latin America whose self-perceived health condition is very poor/poor to women in very poor/poor/average health and their satisfaction with access to healthcare.**

VARIABLES	INCOME											
	Not sufficient - major problems						Not sufficient – have problems					
	Very poor/Poor N=1383			Very poor/Poor/Ave N=4467			Very poor/Poor N=1705			Very poor/Poor/Ave N=8102		
City/Town size	β	SE	p	β	SE	p	β	SE	p	B	SE	p
0-20000 (rural)	0.16	0.07	0.03	0.12	0.05	0.03	0.06	0.08	0.44	0.08	0.05	0.14
20001-100000 (peri-urban)	0.05	0.08	0.54	0.07	0.06	0.23	0.02	0.08	0.81	0.01	0.06	0.83
100,000 + (large-urban)	0.08	0.07	0.28	-0.02	0.04	0.70	0.00	0.09	0.97	0.02	0.04	0.62
Capital (provincial capital)	Reference group											
<b>Year</b>	Reference group											
2004	Reference group											
2005	0.20	0.06	0.00	-0.01	0.05	0.85	0.11	0.08	0.17	0.03	0.06	0.57
2006	0.18	0.08	0.05	-0.06	0.05	0.26	0.05	0.08	0.57	0.02	0.06	0.75
2007	0.17	0.09	0.07	-0.08	0.07	0.24	0.01	0.07	0.85	-0.07	0.05	0.23
<b>Age</b>	Reference group											
18-25	Reference group											
26-40	0.11	0.12	0.36	-0.06	0.06	0.31	-0.04	0.06	0.50	-0.01	0.03	0.72
41-60	0.16	0.10	0.11	-0.03	0.07	0.64	-0.13	0.09	0.14	-0.02	0.04	0.59
61+	0.03	0.13	0.84	-0.13	0.07	0.07	-0.12	0.09	0.18	-0.09	0.05	0.12
<b>Marital status</b>	Reference group											
Married or living w/partner	-0.03	0.08	0.75	0.00	0.05	0.97	-0.06	0.07	0.42	-0.01	0.03	0.66
Never married	Reference group											
Separated/divorced/widower	-0.16	0.07	0.04	-0.09	0.04	0.06	0.04	0.07	0.63	0.02	0.03	0.50
<b>Education level</b>	Reference group											
Illiterate	Reference group											
Incomplete primary	-0.05	0.09	0.59	-0.01	0.04	0.83	-0.06	0.07	0.41	-0.07	0.04	0.07
Complete primary	-0.04	0.08	0.60	-0.06	0.05	0.24	-0.03	0.07	0.70	-0.08	0.04	0.07
Complete secondary, technical	-0.05	0.11	0.65	-0.05	0.07	0.45	-0.16	0.07	0.04	-0.17	0.05	0.00
Complete university	-0.52	0.18	0.01	-0.33	0.09	0.00	-0.02	0.17	0.92	-0.13	0.06	0.05
<b>Employment</b>	Reference group											
Self-employed	0.30	0.16	0.08	-0.06	0.08	0.47	-0.09	0.14	0.50	-0.08	0.05	0.15
Salaried employee in public company	Reference group											
Salaried employee in private company	0.26	0.19	0.19	-0.09	0.10	0.37	-0.18	0.19	0.36	-0.07	0.05	0.19
Unemployed	0.10	0.18	0.59	-0.08	0.10	0.44	-0.14	0.21	0.52	-0.15	0.07	0.05
Retired	0.22	0.22	0.34	0.00	0.11	1.00	0.01	0.16	0.93	0.06	0.07	0.39
Don't work – responsible for housework	0.19	0.18	0.29	-0.02	0.07	0.78	-0.05	0.17	0.78	-0.04	0.05	0.40
Student	0.30	0.34	0.39	0.08	0.11	0.51	-0.16	0.20	0.44	-0.06	0.08	0.47
<b>Chief income earner</b>	Reference group											
Yes	-0.12	0.07	0.10	-0.03	0.04	0.51	0.01	0.08	0.92	-0.06	0.02	0.02
<b>Socioeconomic level</b>	Reference group											
Very bad	-0.15	0.09	0.12	-0.15	0.05	0.00	-0.12	0.12	0.35	-0.08	0.05	0.11
Bad	-0.10	0.04	0.03	-0.06	0.02	0.01	-0.03	0.06	0.58	-0.05	0.03	0.13
Average	Reference group											
Good	-0.03	0.08	0.67	-0.09	0.04	0.03	-0.09	0.07	0.20	-0.04	0.02	0.13
Very good	-0.16	0.20	0.44	0.11	0.12	0.41	0.02	0.11	0.87	-0.06	0.05	0.26
<b>Home characteristics</b>	Reference group											
Home ownership	-0.01	0.07	0.88	-0.03	0.03	0.38	0.01	0.04	0.75	-0.01	0.03	0.74
Drinking water	-0.02	0.08	0.80	-0.02	0.04	0.59	-0.03	0.06	0.63	0.04	0.04	0.27
Sewage	0.14	0.08	0.08	0.07	0.04	0.12	0.10	0.06	0.10	0.02	0.02	0.24
TV ownership	0.00	0.06	0.96	0.03	0.03	0.34	-0.01	0.05	0.89	0.01	0.04	0.79
<b>Satisfaction with life</b>	Reference group											
Not at all satisfied	-0.21	0.10	0.05	-0.41	0.07	0.00	-0.41	0.08	0.00	-0.44	0.05	0.00
Not very satisfied	-0.16	0.09	0.10	-0.25	0.04	0.00	-0.37	0.05	0.00	-0.31	0.04	0.00
Fairly satisfied	-0.05	0.10	0.61	-0.08	0.05	0.12	-0.15	0.06	0.02	-0.14	0.04	0.00

Very satisfied	Reference group											
<b>Coverage of health expenses</b>												
Private insurance	0.15	0.13	0.27	0.28	0.08	0.00	0.19	0.12	0.13	0.22	0.05	0.00
Public insurance	0.20	0.06	0.00	0.18	0.05	0.00	0.02	0.06	0.67	0.12	0.03	0.00
No insurance	Reference group											
<b>Healthcare spending per capita</b>												
HSPC scaled (100 USD PPP)	0.04	0.01	0.02	0.04	0.01	0.00	0.05	0.01	0.00	0.03	0.01	0.00
<b>Health system ranking</b>												
Latin American ranking	0.01	0.01	0.33	0.00	0.00	0.92	0.00	0.00	0.48	0.00	0.00	0.37
<b>Fixed Effect</b>												
Fixed country effect	1.02	0.16	0.00	1.09	0.09	0.00	0.95	0.10	0.00	0.97	0.07	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

**Exhibit 29 (continued): Stratified multiple linear regression by income comparing women in Latin America whose self-perceived health condition is very poor/poor to women in very poor/poor/average health and their satisfaction with access to healthcare.**

VARIABLES	INCOME											
	Just sufficient – no major problems						Sufficient that can save					
	Very poor/Poor N=851			Very poor/Poor/Ave N=5349			Very poor/Poor N=149			Very poor/Poor/Ave N=927		
City/Town size	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
0-20000 (rural)	-0.03	0.12	0.82	0.04	0.04	0.30	0.23	0.14	0.13	-0.16	0.11	0.16
20001-100000 (peri-urban)	0.03	0.09	0.73	0.04	0.04	0.30	-0.10	0.18	0.56	-0.17	0.09	0.07
100,000 + (large-urban)	-0.11	0.10	0.28	0.01	0.05	0.86	-0.20	0.21	0.36	-0.22	0.10	0.04
Capital (provincial capital)	Reference group											
<b>Year</b>												
2004	Reference group											
2005	0.08	0.09	0.41	0.09	0.05	0.08	-0.22	0.23	0.35	-0.03	0.09	0.78
2006	0.14	0.07	0.06	0.15	0.04	0.00	-0.01	0.27	0.98	-0.10	0.12	0.39
2007	0.05	0.10	0.64	-0.04	0.04	0.41	-0.03	0.27	0.91	-0.11	0.11	0.36
<b>Age</b>												
18-25	Reference group											
26-40	0.06	0.12	0.64	0.02	0.03	0.52	-0.27	0.34	0.44	0.04	0.11	0.69
41-60	0.08	0.15	0.58	0.02	0.04	0.55	-0.31	0.41	0.46	-0.07	0.12	0.58
61+	0.19	0.14	0.21	0.09	0.05	0.11	-0.58	0.45	0.22	0.16	0.14	0.25
<b>Marital status</b>												
Married or living w/partner	-0.14	0.07	0.07	0.02	0.04	0.72	-0.39	0.32	0.24	-0.09	0.06	0.18
Never married	Reference group											
Separated/divorced/widower	-0.20	0.11	0.07	0.01	0.04	0.87	0.17	0.41	0.68	0.07	0.14	0.63
<b>Education level</b>												
Illiterate	Reference group											
Incomplete primary	0.08	0.11	0.48	0.08	0.05	0.12	0.03	0.25	0.90	0.06	0.13	0.65
Complete primary	0.04	0.11	0.70	0.10	0.06	0.08	0.07	0.30	0.81	-0.05	0.12	0.70
Complete secondary, technical	0.08	0.11	0.47	0.08	0.06	0.21	-0.04	0.29	0.89	-0.05	0.10	0.59
Complete university	0.10	0.22	0.67	0.04	0.07	0.61	-0.42	0.45	0.36	-0.07	0.18	0.69
<b>Employment</b>												
Self-employed	-0.01	0.12	0.97	0.02	0.05	0.66	-0.36	0.32	0.27	-0.04	0.13	0.79
Salaried employee in public company	Reference group											
Salaried employee in private company	-0.06	0.19	0.75	0.02	0.05	0.66	-0.32	0.33	0.34	0.05	0.11	0.66
Unemployed	-0.08	0.18	0.67	0.01	0.07	0.90	0.26	0.47	0.58	-0.04	0.15	0.79
Retired	0.13	0.17	0.46	0.12	0.06	0.07	0.11	0.32	0.74	-0.04	0.20	0.84
Don't work – responsible for housework	0.03	0.13	0.82	0.02	0.05	0.67	-0.37	0.38	0.34	0.04	0.12	0.76
Student	-0.24	0.17	0.19	0.03	0.06	0.61	-0.77	0.38	0.06	0.00	0.12	0.97
<b>Chief income earner</b>												
Yes	-0.08	0.07	0.24	-0.04	0.04	0.33	0.18	0.26	0.50	0.00	0.06	0.99
<b>Socioeconomic level</b>												
Very bad	-0.09	0.23	0.72	-0.03	0.11	0.76	0.21	1.00	0.84	-0.18	0.36	0.62
Bad	0.07	0.09	0.49	0.02	0.03	0.64	-0.05	0.29	0.86	-0.17	0.10	0.12
Average	Reference group											



Good	-0.01	0.07	0.93	0.05	0.03	0.09	0.26	0.27	0.33	-0.17	0.07	0.02
Very good	-0.08	0.12	0.50	0.00	0.06	0.97	0.32	0.29	0.28	-0.12	0.08	0.16
<b>Home characteristics</b>												
Home ownership	0.04	0.09	0.68	0.00	0.03	0.97	0.44	0.20	0.05	0.02	0.08	0.79
Drinking water	0.17	0.13	0.21	0.05	0.04	0.21	0.06	0.36	0.88	0.11	0.13	0.41
Sewage	0.00	0.07	0.97	-0.04	0.04	0.34	0.04	0.35	0.90	-0.04	0.06	0.58
TV ownership	-0.01	0.10	0.89	-0.05	0.07	0.48	0.35	0.51	0.50	-0.08	0.13	0.53
<b>Satisfaction with life</b>												
Not at all satisfied	-0.45	0.21	0.05	-0.42	0.08	0.00	-1.12	0.50	0.04	-1.01	0.14	0.00
Not very satisfied	-0.55	0.07	0.00	-0.37	0.03	0.00	-0.33	0.21	0.13	-0.33	0.09	0.00
Fairly satisfied	-0.27	0.08	0.00	-0.20	0.04	0.00	-0.01	0.23	0.97	-0.18	0.10	0.10
Very satisfied												
Reference group												
<b>Coverage of health expenses</b>												
Private insurance	0.24	0.11	0.04	0.17	0.06	0.01	-0.13	0.21	0.54	0.11	0.12	0.36
Public insurance	0.23	0.07	0.00	0.09	0.04	0.03	0.10	0.27	0.71	-0.02	0.11	0.85
No insurance												
Reference group												
<b>Healthcare spending per capita</b>												
HSPC scaled (100 USD PPP)	0.04	0.02	0.07	0.03	0.00	0.00	0.00	0.04	0.92	0.03	0.01	0.01
<b>Health system ranking</b>												
Latin American ranking	0.00	0.01	0.57	0.00	0.00	0.51	-0.02	0.02	0.27	-0.01	0.01	0.14
<b>Fixed Effect</b>												
Fixed country effect	1.00	0.20	0.00	0.93	0.07	0.00	0.53	0.48	0.29	0.84	0.17	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Latin American women, in very poor and poor health whose income is not sufficient and live in the rural areas are 0.12 to 0.16 points more satisfied with their healthcare access (SE 0.08/0.07,  $p=0.44/p<0.05$ ), while women living in the peri-urban areas are 0.02 to 0.05 points more satisfied (SE 0.08/0.08,  $p=0.81/p=0.54$ ) and those living in large urban areas are up to 0.08 points more satisfied (SE 0.07,  $p=0.28$ ) when compared to those women living in the capital. However women with sufficient income that they can save and who live in the rural areas are 0.23 points more satisfied with their healthcare access (SE 0.14,  $p=0.13$ ) while those living in the peri-urban areas are 0.10 points less satisfied (SE 0.18,  $p=0.56$ ), and those women living in the large urban areas are 0.20 points less satisfied (SE 0.21,  $p=0.36$ ), when compared to those women living in the capital. In other words, the greater the income Latin American women in very poor and poor health condition have, the greater the difference location of their home makes in the healthcare access satisfaction.

Latin American women, in very poor, poor and average health whose income is not sufficient and live in the rural areas are 0.08 to 0.12 points more satisfied with their healthcare access (SE 0.05/0.05,  $p=0.14/p<0.05$ ), while women living in the peri-urban areas are 0.01 to 0.07 points more satisfied (SE 0.06/0.06,  $p=0.83/p=0.23$ ), and those living in large urban areas are up to 0.02 points more

satisfied (SE 0.04,  $p=0.62$ ) when compared to those women living in the capital. However, women with sufficient income that they can save who live in the rural areas are 0.16 points less satisfied with their healthcare access (SE 0.11,  $p=0.16$ ) while those living in the peri-urban areas are 0.17 points less satisfied (SE 0.09,  $p<0.07$ ), and those living in the large urban areas are 0.22 points less satisfied (SE 0.10,  $p<0.05$ ), when compared to those women living in the capital. In other words, the greater the income Latin American women whose health condition is very poor, poor and average have, the greater the difference location of their home makes in the healthcare access satisfaction.

Latin American women, in very poor and poor health condition, whose income is not sufficient and have private health insurance are 0.15 to 0.19 points more satisfied with their healthcare access (SE 0.13/0.12,  $p=0.27/p=0.13$ ) while women with public health insurance are 0.02 to 0.20 points more satisfied (SE 0.06/0.06,  $p=0.67/p<0.00$ ), when compared to those women with no health insurance. However as women's income increases their satisfaction with healthcare access increases, for those with private insurance to 0.24 points more satisfied (SE 0.11,  $p<0.05$ ) and those with public insurance to 0.23 points more satisfied (SE 0.07,  $p<0.00$ ). Interestingly for those women in the highest income bracket with private health insurance, their healthcare access satisfaction is decreased to 0.13 points less satisfied (SE 0.21,  $p=0.54$ ), while public insurance reduces healthcare access satisfaction to 0.10 points more satisfied (SE 0.27,  $p=0.71$ ). However, those women in very poor, poor and average health condition whose income is not sufficient and have private health insurance are 0.22 to 0.28 points more satisfied with their healthcare access (SE 0.05/0.08,  $p<0.00/p<0.00$ ), while women with public health insurance are 0.12 to 0.18 points more satisfied (SE 0.03/0.05,  $p<0.00/p<0.00$ ) when compared to those women with no health insurance. However as women's income increases their satisfaction with healthcare access decreases, for those with private insurance to 0.17 points more satisfied (SE 0.06,  $p<0.01$ ) and those with public insurance to 0.09 points more satisfied (SE 0.04,  $p<0.05$ ). For those women in the highest income bracket with private health insurance, their healthcare access satisfaction

decreases to 0.11 points more satisfied (SE 0.12,  $p=0.36$ ) while public insurance reduces healthcare access satisfaction to 0.02 points less satisfied (SE 0.11,  $p=0.85$ ). In other words, as income increases for Latin American women in very poor and poor health condition with private or public insurance, so does their satisfaction with healthcare access, while for women in very poor, poor and average health condition their satisfaction with healthcare access decreases as their income increases.

Generally speaking, for Latin American women in very poor and poor health condition, the greater the income women have the less difference sewage, healthcare spending per capita and country health system ranking make in their healthcare access satisfaction. However, the greater the income women have the greater the negative difference the location of their home, marital status, employment/housework, satisfaction with life, health insurance and country-fixed effect make in their healthcare access satisfaction, while the greater the positive difference their education level, unemployment, being a chief income earner, socioeconomic status, owning a home, access to drinking water and owning a TV make in their healthcare access satisfaction.

Generally speaking for Latin American women in very poor, poor and average health condition, the greater the income women have the less difference unemployment/household work, owning a home, healthcare spending per capita and country health system ranking make in their healthcare access satisfaction. However, the greater the income that women have the greater the negative difference the location of their home, marital status, education level, socioeconomic status, sewage, owning a TV, health insurance and the country-fixed effect make in their healthcare access satisfaction, while the greater the positive difference employment and access to drinking water make in their healthcare access satisfaction.

## 2) Stratified by location of home

**Exhibit 30: Stratified multiple linear regression by city/town size comparing women in Latin America whose self-perceived health condition is very poor/poor to women in very poor/poor/average health and their satisfaction with access to healthcare.**

VARIABLES	CITY/TOWN SIZE											
	Rural less than 20,000						Peri-urban 20,000-100,000					
	Very poor/Poor N=1216			Very poor/Poor/Ave N=5398			Very poor/Poor N=1107			Very poor/Poor/Ave N=5075		
	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
<b>Household income</b>												
Not sufficient, major problems	-0.66	0.14	0.00	-0.29	0.06	0.00	-0.34	0.20	0.11	-0.33	0.09	0.00
Not sufficient, have problems	-0.52	0.14	0.00	-0.18	0.05	0.00	-0.20	0.17	0.27	-0.25	0.08	0.01
Just sufficient, no major problems	-0.43	0.17	0.02	-0.08	0.06	0.16	0.00	0.19	0.99	-0.07	0.08	0.39
Sufficient that you can save	Reference group											
<b>Year</b>												
2004	Reference group											
2005	0.08	0.07	0.28	0.02	0.06	0.76	0.17	0.09	0.06	-0.03	0.07	0.65
2006	0.08	0.09	0.38	-0.01	0.05	0.87	0.10	0.07	0.17	-0.06	0.08	0.46
2007	-0.04	0.14	0.75	-0.09	0.06	0.12	0.09	0.07	0.21	-0.16	0.06	0.02
<b>Age</b>												
18-25	Reference group											
26-40	-0.13	0.08	0.11	0.01	0.03	0.85	0.05	0.11	0.65	-0.07	0.04	0.10
41-60	-0.04	0.09	0.69	0.00	0.04	0.99	0.03	0.11	0.77	-0.03	0.04	0.50
61+	-0.16	0.10	0.11	-0.04	0.06	0.46	-0.08	0.15	0.61	-0.10	0.06	0.11
<b>Marital status</b>												
Married or living w/partner	-0.06	0.06	0.33	-0.01	0.03	0.64	-0.08	0.09	0.42	-0.03	0.04	0.47
Never married	Reference group											
Separated/divorced/widower	-0.03	0.08	0.67	0.02	0.03	0.41	-0.07	0.10	0.52	-0.05	0.04	0.26
<b>Education level</b>												
Illiterate	Reference group											
Incomplete primary	0.10	0.07	0.18	0.02	0.04	0.64	-0.08	0.07	0.28	-0.02	0.03	0.48
Complete primary	-0.01	0.07	0.84	-0.02	0.07	0.78	-0.06	0.07	0.45	-0.08	0.03	0.02
Complete secondary, technical	-0.05	0.08	0.52	-0.04	0.06	0.56	-0.24	0.11	0.05	-0.17	0.04	0.00
Complete university	-0.22	0.19	0.25	-0.15	0.09	0.13	-0.06	0.17	0.75	-0.27	0.08	0.00
<b>Employment</b>												
Self-employed	-0.05	0.13	0.70	-0.03	0.08	0.76	-0.03	0.14	0.83	-0.05	0.05	0.31
Salaried employee in public company	Reference group											
Salaried employee in private company	-0.02	0.16	0.90	0.00	0.09	0.97	0.01	0.19	0.97	-0.03	0.05	0.53
Unemployed	-0.11	0.19	0.57	-0.05	0.10	0.62	-0.27	0.23	0.25	-0.10	0.09	0.28
Retired	0.18	0.14	0.20	0.16	0.08	0.06	0.08	0.14	0.60	0.10	0.07	0.15
Don't work – responsible for housework	-0.08	0.18	0.64	0.03	0.08	0.75	0.04	0.17	0.81	-0.03	0.04	0.51
Student	-0.20	0.35	0.58	0.00	0.10	1.00	0.05	0.30	0.86	0.00	0.10	1.00
<b>Chief income earner</b>												
Yes	-0.08	0.08	0.34	-0.02	0.02	0.54	-0.04	0.08	0.61	-0.05	0.04	0.21
<b>Socioeconomic level</b>												
Very bad	-0.03	0.08	0.69	-0.10	0.05	0.07	-0.08	0.10	0.46	-0.13	0.06	0.03
Bad	0.01	0.05	0.81	-0.02	0.04	0.64	-0.07	0.07	0.32	-0.06	0.04	0.13
Average	Reference group											
Good	-0.02	0.06	0.73	0.02	0.03	0.57	0.02	0.07	0.79	-0.03	0.03	0.28
Very good	-0.07	0.13	0.62	0.09	0.07	0.23	0.01	0.14	0.95	-0.06	0.06	0.32
<b>Home characteristics</b>												
Home ownership	0.01	0.05	0.89	0.01	0.03	0.84	0.03	0.06	0.61	-0.05	0.03	0.17
Drinking water	-0.05	0.07	0.44	0.05	0.04	0.29	-0.01	0.08	0.88	0.00	0.04	0.99
Sewage	0.11	0.07	0.16	0.00	0.04	0.95	0.16	0.05	0.01	0.04	0.02	0.16
TV ownership	0.00	0.10	0.97	0.01	0.05	0.79	0.14	0.08	0.09	0.08	0.03	0.03
<b>Satisfaction with life</b>												
Not at all satisfied	-0.32	0.12	0.01	-0.45	0.06	0.00	-0.41	0.11	0.00	-0.48	0.07	0.00
Not very satisfied	-0.35	0.09	0.00	-0.36	0.04	0.00	-0.19	0.06	0.01	-0.25	0.04	0.00
Fairly satisfied	-0.21	0.08	0.01	-0.18	0.05	0.00	-0.05	0.06	0.42	-0.11	0.04	0.01

	Very satisfied			Reference group								
<b>Coverage of health expenses</b>												
Private insurance	0.25	0.12	0.04	0.10	0.06	0.13	0.02	0.11	0.83	0.17	0.05	0.00
Public insurance	0.19	0.06	0.01	0.11	0.03	0.00	0.15	0.06	0.03	0.14	0.03	0.00
No insurance	Reference group											
<b>Healthcare spending per capita</b>												
HSPC scaled (100 USD PPP)	0.04	0.02	0.02	0.03	0.01	0.00	0.04	0.01	0.00	0.05	0.01	0.00
<b>Health system ranking</b>												
Latin American ranking	0.01	0.01	0.21	0.00	0.00	0.28	0.00	0.00	0.91	0.00	0.00	0.93
<b>Fixed Effect</b>												
Fixed country effect	1.01	0.16	0.00	0.87	0.06	0.00	1.04	0.11	0.00	1.14	0.06	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

**Exhibit 30 (continued): Stratified multiple linear regression by city/town size comparing women in Latin America whose self-perceived health condition is very poor/poor to women in very poor/poor/average health and their satisfaction with access to healthcare.**

VARIABLES	CITY/TOWN SIZE											
	Large urban >100,000						Capital					
	Very poor/Poor N=1087			Very poor/Poor/Ave N=4979			Very poor/Poor N=723			Very poor/Poor/Ave N=3393		
	$\beta$	SE	p	$\beta$	SE	p	B	SE	p	$\beta$	SE	p
<b>Household income</b>												
Not sufficient, major problems	-0.32	0.17	0.08	-0.37	0.07	0.00	-0.52	0.14	0.00	-0.52	0.08	0.00
Not sufficient, have problems	-0.21	0.14	0.15	-0.19	0.06	0.01	-0.33	0.15	0.04	-0.43	0.08	0.00
Just sufficient, no major problems	-0.15	0.11	0.22	-0.06	0.05	0.28	-0.19	0.14	0.20	-0.29	0.07	0.00
Sufficient that you can save	Reference group											
<b>Year</b>												
2004	Reference group											
2005	0.16	0.08	0.05	0.04	0.06	0.51	0.13	0.08	0.11	0.12	0.06	0.05
2006	0.08	0.07	0.33	0.02	0.05	0.77	0.23	0.09	0.02	0.24	0.06	0.00
2007	0.10	0.09	0.27	-0.03	0.05	0.55	0.19	0.18	0.32	0.04	0.09	0.63
<b>Age</b>												
18-25	Reference group											
26-40	0.12	0.11	0.27	0.08	0.05	0.13	0.02	0.10	0.84	-0.06	0.05	0.19
41-60	0.11	0.11	0.34	0.04	0.06	0.49	-0.18	0.11	0.13	-0.08	0.03	0.02
61+	0.14	0.13	0.28	0.08	0.07	0.26	-0.09	0.10	0.39	-0.10	0.04	0.03
<b>Marital status</b>												
Married or living w/partner	-0.17	0.07	0.03	-0.03	0.04	0.56	0.06	0.12	0.64	0.07	0.04	0.14
Never married	Reference group											
Separated/divorced/widower	-0.20	0.07	0.01	-0.07	0.04	0.07	0.00	0.13	0.99	0.07	0.06	0.26
<b>Education level</b>												
Illiterate	Reference group											
Incomplete primary	-0.07	0.09	0.43	0.01	0.04	0.76	-0.31	0.14	0.04	-0.20	0.07	0.01
Complete primary	-0.01	0.11	0.92	0.02	0.05	0.75	-0.21	0.12	0.09	-0.14	0.07	0.06
Complete secondary, technical	-0.02	0.09	0.81	-0.02	0.05	0.70	-0.31	0.10	0.01	-0.20	0.07	0.01
Complete university	0.08	0.21	0.72	0.01	0.08	0.85	-0.36	0.21	0.10	-0.23	0.08	0.02
<b>Employment</b>												
Self-employed	-0.04	0.15	0.78	-0.04	0.06	0.54	0.05	0.18	0.80	-0.08	0.06	0.22
Salaried employee in public company	Reference group											
Salaried employee in private company	-0.33	0.17	0.07	-0.07	0.04	0.13	0.07	0.23	0.76	-0.05	0.07	0.49
Unemployed	0.01	0.20	0.97	-0.04	0.07	0.57	-0.11	0.18	0.55	-0.16	0.07	0.03
Retired	-0.19	0.17	0.30	0.00	0.10	0.98	0.14	0.17	0.43	0.02	0.08	0.81
Don't work – responsible for housework	-0.12	0.15	0.44	-0.04	0.07	0.64	0.10	0.19	0.62	-0.05	0.07	0.50
Student	-0.22	0.20	0.29	0.00	0.06	0.95	-0.05	0.20	0.82	-0.09	0.10	0.40
<b>Chief income earner</b>												
Yes	-0.10	0.08	0.22	-0.06	0.03	0.08	0.16	0.10	0.13	-0.03	0.04	0.53
<b>Socioeconomic level</b>												
Very bad	-0.32	0.14	0.04	-0.12	0.08	0.15	-0.03	0.13	0.83	-0.06	0.08	0.51
Bad	-0.05	0.07	0.48	0.00	0.05	0.93	-0.16	0.06	0.03	-0.11	0.03	0.00
Average	Reference group											

Good	-0.16	0.08	0.05	-0.04	0.03	0.21	0.04	0.08	0.63	-0.03	0.04	0.53
Very good	-0.13	0.14	0.36	-0.06	0.06	0.36	0.01	0.14	0.96	-0.05	0.07	0.44
<b>Home characteristics</b>												
Home ownership	-0.04	0.04	0.43	-0.01	0.03	0.86	0.17	0.08	0.06	-0.01	0.02	0.74
Drinking water	0.19	0.06	0.01	0.09	0.03	0.01	-0.13	0.12	0.29	-0.07	0.07	0.31
Sewage	0.07	0.07	0.31	0.01	0.04	0.73	-0.02	0.10	0.86	0.02	0.05	0.65
TV ownership	-0.25	0.10	0.02	-0.09	0.05	0.08	0.03	0.09	0.76	-0.04	0.05	0.48
<b>Satisfaction with life</b>												
Not at all satisfied	-0.25	0.11	0.04	-0.42	0.08	0.00	-0.58	0.10	0.00	-0.48	0.07	0.00
Not very satisfied	-0.29	0.10	0.01	-0.31	0.04	0.00	-0.63	0.08	0.00	-0.35	0.05	0.00
Fairly satisfied	-0.11	0.12	0.35	-0.16	0.04	0.00	-0.34	0.09	0.00	-0.14	0.04	0.01
Very satisfied												
Reference group												
<b>Coverage of health expenses</b>												
Private insurance	0.24	0.18	0.20	0.23	0.04	0.00	0.16	0.15	0.29	0.31	0.07	0.00
Public insurance	-0.02	0.05	0.75	0.10	0.03	0.00	0.16	0.10	0.12	0.13	0.04	0.01
No insurance												
Reference group												
<b>Healthcare spending per capita</b>												
HSPC scaled (100 USD PPP)	0.05	0.01	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.02	0.01	0.02
<b>Health system ranking</b>												
Latin American ranking	0.00	0.00	0.70	-0.01	0.00	0.00	0.01	0.01	0.43	0.00	0.01	0.90
<b>Fixed Effect</b>												
Fixed country effect	0.73	0.13	0.00	0.86	0.07	0.00	1.22	0.15	0.00	1.01	0.12	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Latin American women, in very poor and poor health condition who live in the rural areas and whose income is insufficient, are 0.52 to 0.66 points less satisfied with their healthcare access (SE 0.14/0.14,  $p < 0.00/p < 0.00$ ), while women who live in peri-urban areas are 0.20 to 0.34 points less satisfied (SE 0.17/0.20,  $p = 0.27/p = 0.11$ ), and those living large urban areas are 0.21 to 0.32 points less satisfied (SE 0.14/0.17,  $p = 0.15/p < 0.10$ ) and those living in the capital are 0.33 to 0.53 points less satisfied with their healthcare access (SE 0.15/0.14,  $p < 0.05/p < 0.00$ ), when compared to those women who have sufficient income that they can save. Women with sufficient income who live in rural areas are 0.43 points less satisfied with their healthcare access (SE 0.17,  $p < 0.05$ ), while those living in the large urban areas are 0.15 points less satisfied their healthcare access (SE 0.11,  $p = 0.22$ ), and those living in the capital are 0.19 points less satisfied with their healthcare access (SE 0.14,  $p = 0.20$ ), when compared to those women whose income allows them to save. In other words, Latin American women in very poor and poor health condition, who live in the rural or capital areas, tend to be less satisfied with their healthcare access.

Latin American women, in very poor, poor and average health condition who live in the rural areas and whose income is insufficient, are 0.18 to 0.29 points less satisfied with their healthcare access

(SE 0.05/0.06,  $p<0.00/p<0.00$ ), while women who live in peri-urban areas are 0.25 to 0.33 points less satisfied (SE 0.08/0.09,  $p<0.01/p<0.00$ ), and those living large urban areas are 0.19 to 0.37 points less satisfied (SE 0.06/0.07,  $p<0.01/p<0.00$ ) and those living in the capital are 0.43 to 0.52 points less satisfied (SE 0.08/0.08,  $p<0.00/p<0.00$ ), when compared to those women who have sufficient income that they can save. Women with sufficient income who live in rural areas are 0.08 points less satisfied with their healthcare access (SE 0.06,  $p=0.16$ ), while those living in the peri-urban areas are 0.07 points less satisfied (SE 0.08,  $p=0.39$ ), and those living in the large urban areas are 0.06 points less satisfied (SE 0.05,  $p=0.28$ ) and those living in the capital are 0.29 points less satisfied (SE 0.07,  $p<0.00$ ), when compared to those women whose income allows them to save. In other words, Latin American women in very poor, poor and average health condition, living in the capital areas, tend to be less satisfied with their healthcare access.

Latin American women, in very poor and poor health condition who live in rural areas and have private health insurance are 0.25 points more satisfied with their healthcare access (SE 0.12,  $p<0.05$ ), while women with public health insurance are 0.19 points more satisfied (SE 0.06,  $p<0.01$ ), when compared to those women with no health insurance. In addition, women living in larger towns/cities who have private health insurance are 0.02 to 0.24 points more satisfied with their healthcare access (SE 0.11/0.18,  $p=0.83/p=0.20$ ) while those with public insurance are up to 0.15 points more satisfied (SE 0.06,  $p<0.05$ ). However, women living in the capital who have private health insurance are 0.16 points more satisfied with their healthcare access (SE 0.15,  $p=0.29$ ), while women with public health insurance are also 0.16 points more satisfied (SE 0.10,  $p=0.12$ ), when compared to those women with no health insurance. However, those women in very poor, poor and average health condition who live in rural areas and have private health insurance are 0.10 points more satisfied with their healthcare access (SE 0.06,  $p=0.13$ ), while women with public health insurance are 0.11 points more satisfied (SE 0.03,  $p<0.00$ ) when compared to those women with no health insurance. In addition, women living in larger

towns/cities who have private health insurance are 0.17 to 0.23 points more satisfied with their healthcare access (SE 0.05/0.04,  $p < 0.00/p < 0.00$ ), while those with public insurance are 0.10 to 0.14 points more satisfied (SE 0.03/0.03,  $p < 0.00/p < 0.00$ ). However, women living in the capital with private health insurance are 0.31 points more satisfied with their healthcare access (SE 0.07,  $p < 0.00$ ), while women with public health insurance are 0.13 points more satisfied (SE 0.04,  $p < 0.01$ ) when compared to those women with no health insurance. In other words, women whose health condition is very poor and poor and who have health insurance living in the rural areas tend to be more satisfied with their healthcare access. However, women whose health condition is very poor and poor and average, who are insured living in the capital tend to be more satisfied with their healthcare access.

Generally speaking, for Latin American women in very poor and poor health condition, the larger the size of the town/city in which they live the less difference healthcare spending per capita and country health system ranking make in their healthcare access satisfaction. However, the larger the size of the town/city in which women live the greater the negative difference marital status, education level, being a chief income earner, socioeconomic status, sewage, owning a TV and satisfaction with life make in their healthcare access satisfaction, while greater the positive difference income, age, employment, owning a home, access to drinking water and health insurance make in their satisfaction.

Generally speaking, for Latin American women in very poor, poor and average health condition the larger size of the town/city in which they live the less difference employment, being a chief income earner, socioeconomic status, owning a home, sewage, owning a TV, satisfaction with life, healthcare spending per capita, country health system ranking and country-fixed effect make in their healthcare access satisfaction. However, the larger the size of the town/city in which women live the greater the negative difference income, age, education and access to drinking water make in their healthcare access satisfaction, while the greater the positive difference marital status and having health insurance make in their healthcare access satisfaction.



### 3) Stratified by health insurance

**Exhibit 31: Stratified multiple linear regression by health insurance type comparing women in Latin America whose self-perceived health condition is very poor/poor to women in very poor/poor/average health and their satisfaction with access to healthcare.**

VARIABLES	TYPE OF INSURANCE																	
	None						Public						Private					
	Very poor/Poor N=2256			Very poor/Poor/Ave N=9558			Very poor/Poor N=1512			Very poor/Poor/Ave N=7107			Very poor/Poor N=365			Very poor/Poor/Ave N=2180		
	β	SE	p	β	SE	p	β	SE	p	β	SE	p	β	SE	p	β	SE	p
<b>Household income</b>	Reference group																	
Not sufficient, major problems	-0.47	0.16	0.01	-0.44	0.09	0.00	-0.45	0.12	0.00	-0.30	0.06	0.00	-0.55	0.21	0.02	-0.31	0.11	0.01
Not sufficient, have problems	-0.30	0.14	0.04	-0.30	0.08	0.00	-0.39	0.11	0.00	-0.21	0.05	0.00	-0.28	0.19	0.15	-0.26	0.09	0.01
Just sufficient, no major problems	-0.28	0.16	0.10	-0.16	0.07	0.04	-0.15	0.12	0.21	-0.07	0.04	0.11	-0.21	0.21	0.34	-0.12	0.08	0.16
Sufficient that you can save	Reference group																	
<b>City/Town size</b>	Reference group																	
0-20000 (rural)	0.08	0.07	0.30	0.09	0.04	0.03	0.10	0.07	0.21	0.09	0.04	0.05	0.11	0.14	0.46	-0.08	0.08	0.35
20001-100000 (peri-urban)	0.04	0.09	0.69	0.03	0.05	0.58	0.06	0.07	0.37	0.08	0.04	0.09	-0.10	0.20	0.63	-0.08	0.06	0.18
100,000 + (large-urban)	0.05	0.07	0.49	0.02	0.04	0.61	-0.08	0.10	0.46	0.01	0.06	0.79	0.03	0.22	0.90	-0.05	0.06	0.39
Capital (provincial capital)	Reference group																	
<b>Year</b>	Reference group																	
2004	Reference group																	
2005	0.12	0.07	0.10	0.01	0.05	0.87	0.17	0.06	0.01	0.07	0.04	0.07	-0.04	0.20	0.84	0.03	0.08	0.70
2006	0.10	0.05	0.07	-0.04	0.05	0.43	0.14	0.06	0.02	0.11	0.04	0.02	-0.04	0.22	0.87	0.08	0.06	0.17
2007	0.09	0.09	0.33	-0.07	0.07	0.28	0.07	0.07	0.34	-0.07	0.04	0.13	-0.05	0.18	0.77	-0.08	0.07	0.24
<b>Age</b>	Reference group																	
18-25	Reference group																	
26-40	-0.03	0.05	0.56	0.00	0.03	0.95	0.16	0.11	0.18	-0.02	0.03	0.48	-0.07	0.18	0.72	0.06	0.05	0.25
41-60	-0.02	0.07	0.84	0.00	0.04	0.93	0.04	0.09	0.68	-0.04	0.05	0.36	0.13	0.18	0.48	0.12	0.06	0.06
61+	-0.15	0.08	0.09	-0.08	0.05	0.13	0.16	0.12	0.21	-0.03	0.04	0.38	0.13	0.21	0.55	0.17	0.10	0.13
<b>Marital status</b>	Reference group																	
Married or living w/partner	-0.10	0.05	0.09	-0.01	0.02	0.51	-0.04	0.08	0.64	0.00	0.03	0.96	-0.21	0.19	0.29	-0.04	0.05	0.46
Never married	Reference group																	
Separated/divorced/widower	-0.10	0.05	0.07		0.03	0.33	-0.08	0.08	0.33	0.00	0.03	0.88	-0.16	0.23	0.50	0.00	0.07	0.98
<b>Education level</b>	Reference group																	
Illiterate	Reference group																	
Incomplete primary	0.00	0.08	0.97	-0.05	0.04	0.15	-0.07	0.08	0.40	0.04	0.07	0.52	-0.09	0.17	0.60	0.02	0.10	0.87
Complete primary	-0.04	0.06	0.47	-0.07	0.05	0.17	-0.01	0.08	0.86	0.02	0.07	0.79	-0.19	0.21	0.39	0.03	0.12	0.78
Complete secondary, technical	-0.14	0.06	0.03	-0.11	0.05	0.03	-0.06	0.08	0.47	-0.03	0.08	0.69	-0.08	0.22	0.72	-0.01	0.10	0.91
Complete university	-0.42	0.12	0.00	-0.27	0.06	0.00	0.00	0.16	0.99	-0.04	0.08	0.63	0.04	0.24	0.87	0.05	0.12	0.69
<b>Employment</b>	Reference group																	
Self-employed	0.07	0.12	0.58	-0.14	0.06	0.02	-0.02	0.11	0.85	-0.02	0.05	0.66	0.03	0.38	0.94	0.02	0.06	0.72
Salaried employee in public company	Reference group																	
Salaried employee in private company	0.03	0.12	0.82	-0.09	0.06	0.15	-0.09	0.11	0.43	-0.03	0.06	0.64	0.16	0.38	0.69	0.01	0.09	0.91
Unemployed	0.06	0.17	0.74	-0.20	0.06	0.00	-0.21	0.13	0.12	-0.07	0.06	0.23	-0.01	0.58	0.99	0.06	0.13	0.66

Retired	0.08	0.17	0.63	-0.12	0.08	0.15	-0.06	0.13	0.63	0.07	0.07	0.31	0.39	0.37	0.31	0.23	0.09	0.02
Don't work – responsible for housework	0.00	0.14	0.99	-0.14	0.05	0.01	-0.08	0.10	0.48	0.02	0.06	0.70	0.54	0.33	0.12	0.12	0.07	0.13
Student	-0.07	0.14	0.61	-0.14	0.06	0.04	-0.16	0.20	0.42	-0.09	0.06	0.17	0.15	0.41	0.72	0.35	0.09	0.00
<b>Chief income earner</b>																		
Yes	-0.08	0.07	0.29	-0.05	0.03	0.12	-0.04	0.07	0.62	-0.04	0.03	0.28	0.08	0.14	0.59	-0.02	0.06	0.73
<b>Socioeconomic level</b>																		
Very bad	-0.15	0.06	0.03	-0.14	0.04	0.00	-0.07	0.10	0.53	-0.03	0.07	0.71	-0.64	0.28	0.04	-0.29	0.17	0.10
Bad	-0.05	0.03	0.15	-0.04	0.02	0.08	-0.04	0.05	0.42	-0.02	0.03	0.63	-0.18	0.24	0.45	-0.23	0.08	0.01
Average																		
Good	-0.01	0.05	0.86	-0.05	0.03	0.14	-0.10	0.04	0.03	0.00	0.02	0.88	-0.05	0.12	0.70	0.00	0.04	0.94
Very good	0.03	0.11	0.81	-0.02	0.07	0.81	-0.13	0.10	0.19	-0.09	0.05	0.09	-0.09	0.16	0.59	0.05	0.08	0.52
<b>Home characteristics</b>																		
Home ownership	0.01	0.05	0.87	-0.01	0.02	0.78	0.07	0.05	0.15	-0.01	0.02	0.64	0.00	0.13	0.99	-0.07	0.05	0.16
Drinking water	0.02	0.06	0.79	0.03	0.03	0.29	-0.01	0.10	0.92	0.02	0.04	0.68	-0.20	0.20	0.33	0.03	0.11	0.76
Sewage	0.10	0.07	0.16	0.02	0.04	0.55	0.09	0.04	0.03	0.00	0.02	0.97	0.06	0.10	0.55	-0.01	0.05	0.84
TV ownership	0.01	0.04	0.79	0.03	0.03	0.21	-0.03	0.07	0.71	-0.02	0.04	0.59	0.08	0.24	0.75	-0.20	0.06	0.01
<b>Satisfaction with life</b>																		
Not at all satisfied	-0.36	0.08	0.00	-0.44	0.05	0.00	-0.42	0.14	0.01	-0.49	0.09	0.00	-0.35	0.19	0.08	-0.48	0.12	0.00
Not very satisfied	-0.32	0.05	0.00	-0.30	0.03	0.00	-0.40	0.10	0.00	-0.35	0.04	0.00	-0.31	0.16	0.07	-0.31	0.05	0.00
Fairly satisfied	-0.08	0.05	0.14	-0.14	0.02	0.00	-0.23	0.07	0.01	-0.15	0.05	0.00	-0.22	0.13	0.11	-0.19	0.05	0.00
Very satisfied																		
<b>Healthcare spending per capita</b>																		
HSPC scaled (100 USD PPP)	0.03	0.01	0.01	0.03	0.01	0.00	0.05	0.01	0.00	0.03	0.01	0.00	0.05	0.03	0.07	0.03	0.01	0.02
<b>Health system ranking</b>																		
Latin American ranking	0.01	0.00	0.04	0.00	0.00	0.42	0.00	0.00	0.16	0.00	0.00	0.34	-0.01	0.01	0.62	-0.01	0.00	0.13
<b>Fixed Effect</b>																		
Fixed country effect	0.84	0.11	0.00	0.99	0.07	0.00	1.03	0.09	0.00	0.99	0.06	0.00	1.01	0.25	0.00	0.88	0.11	0.00

Source: Latinobarometro survey 2004, 2005, 2006, 2007

Latin American women, whose health condition is very poor and poor with no health insurance and whose income was not sufficient were 0.30 to 0.47 points less satisfied with their healthcare access (SE 0.14/0.16,  $p<0.05/p<0.01$ ), while those women who had sufficient income were 0.28 points less satisfied (SE 0.16,  $p<0.10$ ), when compared to women who had no insurance and whose income allowed them to save. Women with public health insurance and whose income was not sufficient were 0.39 to 0.45 points less satisfied with their healthcare access (SE 0.11/0.12,  $p<0.00/p<0.00$ ), while those women who had sufficient income were 0.15 points less satisfied (SE 0.12,  $p=0.21$ ), when compared to women who had public insurance and whose income allowed them to save. Women who had private insurance and whose income was not sufficient were 0.28 to 0.55 points less satisfied with their healthcare access (SE 0.19/0.21,  $p=0.15/p<0.05$ ), while women whose income was sufficient were 0.21 points less satisfied (SE 0.21,  $p=0.34$ ), when compared to those women who had private insurance and whose income allowed them to save. In other words, for women in very poor and poor health condition, the better their health insurance the greater difference income had in their overall healthcare satisfaction.

Latin American women, whose health condition is very poor, poor and average with no health insurance and whose income was not sufficient were 0.30 to 0.44 points less satisfied with their healthcare access (SE 0.08/0.09,  $p<0.00/p<0.00$ ), while those women who had sufficient income were 0.16 points less satisfied (SE 0.07,  $p<0.05$ ), when compared to women who had no insurance and whose income allowed them to save. Women with public health insurance and whose income was not sufficient were 0.21 to 0.30 points less satisfied with their healthcare access (SE 0.05/0.06,  $p<0.00/p<0.00$ ), while those women who had sufficient income were 0.07 points less satisfied (SE 0.04,  $p=0.11$ ), when compared to women who had public insurance and whose income allowed them to save. Women who had private insurance and whose income was not sufficient were 0.26 to 0.31 points less satisfied with their healthcare access (SE 0.09/0.11,  $p<0.01/p<0.01$ ), while women whose income was

sufficient were 0.12 points less satisfied (SE 0.08,  $p=0.16$ ), when compared to those women who had private insurance and whose income allowed them to save. In other words, for women in very poor, poor and average health condition, the better their health insurance the less difference income had in their overall healthcare satisfaction.

Latin American women, whose health condition was very poor and poor, who had no insurance and lived in the rural and peri-urban areas were 0.04 to 0.08 points more satisfied with their healthcare access (SE 0.09/0.07,  $p=0.69/p=0.30$ ), while those living in the large urban areas were 0.05 points more satisfied (SE 0.07,  $p=0.49$ ), when compared to those women with no insurance living in the capital. Those women with public health insurance living in the rural and peri-urban areas were 0.06 to 0.10 points more satisfied with their healthcare access (SE 0.07/0.07,  $p=0.37/p=0.21$ ), while those women living in the large urban areas were 0.08 points less satisfied (SE 0.10,  $p=0.46$ ), when compared to those women with public insurance living in the capital. Interestingly, women with private health insurance living in the rural areas were 0.11 points more satisfied with their healthcare access (SE 0.14,  $p=0.46$ ), while those living in the peri-urban areas were 0.10 points less satisfied (SE 0.20,  $p=0.63$ ), while those living in the large urban areas were 0.03 points more satisfied (SE 0.22,  $p=0.90$ ), when compared to those women with private health insurance living in the capital. In general, women in very poor and poor health condition living in the rural areas seem to be more satisfied with their healthcare access be they insured or not.

Latin American women, whose health condition was very poor, poor and average, who had no insurance and lived in the rural and peri-urban areas were 0.03 to 0.09 points more satisfied with their healthcare access (SE 0.05/0.04,  $p=0.58/p<0.05$ ), while those living in the large urban areas were 0.02 points more satisfied (SE 0.04,  $p=0.61$ ), when compared to those women with no insurance living in the capital. Those women with public health insurance living in the rural and peri-urban areas were 0.08 to 0.09 points more satisfied with their healthcare access (SE 0.04/0.04,  $p<0.10/p<0.05$ ), while those

women living in the large urban areas were 0.01 points more satisfied (SE 0.06,  $p=0.79$ ), when compared to those women with public insurance living in the capital. Interestingly, women with private health insurance living in the rural areas and peri-urban were 0.08 points less satisfied with their healthcare access (SE 0.08/0.08,  $p=0.35/p=0.18$ ), while those living in the large urban areas were 0.05 points less satisfied (SE 0.06,  $p=0.39$ ), when compared to those women with private health insurance living in the capital. In general, women in very poor, poor and average health condition living in the rural and peri-urban areas seem to be more satisfied with their healthcare access be they insured or not.

Generally speaking, for Latin American women in very poor and poor health condition, the better health insurance they have the less difference income, location of home, employment, being a chief income earner, owning a home, sewage, satisfaction with life, health spending per capita and country health system ranking make in their healthcare access satisfaction. However, the better health insurance women have the greater the negative difference marital status, education level, socioeconomic status, and access to drinking water make in their healthcare access satisfaction, while the greater the positive difference age, unemployment/household work and owning a TV make in their healthcare access satisfaction.

Generally speaking, for Latin American women in very poor, poor and average health condition, the better health insurance they have the less difference income, marital status, being a chief income earner, owning a home, access to drinking water, sewage, satisfaction with life, healthcare spending per capita and country health system ranking make in their healthcare access satisfaction. However, the better the health insurance women have the greater the negative difference location of home, socioeconomic status and owning a TV make in their healthcare access satisfaction, while the greater the positive difference age, education level, employment and unemployment/housework make in their healthcare access satisfaction.

## a) Summary of results

The results of the stratification models by health condition (self reported) can be summarized as follows:

- i. *Stratification by income:* The greater the income Latin American women in very poor, poor and average health condition have, the greater the difference location of their home makes in the healthcare access satisfaction. In addition, as income increases for Latin American women in very poor and poor health condition with private or public insurance, so does their satisfaction with healthcare access increase, while it decreases for women in very poor, poor and average health condition with private or public health insurance.
- ii. *Stratification by location of home:* Latin American women in very poor and poor health condition, who live in the rural or capital areas, tend to be less satisfied with their healthcare access, while Latin American women in very poor, poor and average health condition, living in the capital areas, tend to be less satisfied with their healthcare access. In addition, women whose health condition is very poor and poor and who have health insurance, living in the rural areas tend to be more satisfied with their healthcare access, while women whose health condition is very poor and poor and average, who have health insurance, living in the capital tend to be more satisfied.
- iii. *Stratification by health insurance:* For women in very poor and poor health condition, the better their health insurance the greater difference income has in their overall healthcare satisfaction, while women in very poor, poor and average health condition, the better their health insurance the less difference income has in their overall healthcare satisfaction. In addition, women in very poor and poor health condition living in the rural areas seem to be more satisfied with their healthcare access be they insured or not while women in very poor, poor and average health condition living in the rural and peri-urban areas seem to be more satisfied with their healthcare access be they insured or not.

## **DISCUSSION**

### a) Summary of findings

The present study examined the association between income, location of home, health condition, health insurance and healthcare spending per capita with healthcare access satisfaction for Latin American women. Individual level factors such as income, health condition and health insurance as well as contextual level characteristics such as location of women's home and healthcare spending per capita proved to be important predictors of healthcare access satisfaction for these women.

The results show that greater income is positively associated with satisfaction with access to healthcare for Latin American women, after adjusting for other factors. Women with less income are less likely to be satisfied with their healthcare access consistently across categories, even when taking into account their health condition. However, the larger the size of the town or city women live in, the greater the difference income makes on their decreased healthcare access satisfaction. In addition, women with private health insurance tend to be more satisfied with their healthcare access when compared to those with public health insurance and no insurance, after adjusting for other factors as well as stratifying by health condition. Furthermore, although healthcare spending per capita does seem to have an effect on increased healthcare access satisfaction in some countries, it also tends to have a negative effect on women's healthcare access satisfaction in others. Hence healthcare spending per capita might not prove a very good predictor of healthcare access satisfaction for women in the region. Finally country health system ranking does not seem to have an important effect on increased healthcare access satisfaction for women in the region, after controlling for the key stratification variables.

Contrary to expectations, women living in rural and peri-urban are more likely to be satisfied with their healthcare access after adjusting for other factors in the model and also when stratifying by health condition. Although the health infrastructure in the rural and peri-urban might prove less

adequate, women living in these areas might have different expectation levels when compared to those women living in the urban areas of the country. The greater income Latin American women in fair to good health have, the less difference the location of their home makes in their overall healthcare access satisfaction, as such income can provide the means to access healthcare facilities in the urban areas. However for those women in the poorest health condition, location of their home does make an important difference, as women with less income will have less access to healthcare services. Clearly health condition for women has proven to be a very strong predictor of their satisfaction, given the frequency and type of healthcare services they access.

While women with good to very good health condition are satisfied with their overall access to healthcare, as their health condition is worse they tend to be less satisfied even when they have greater income or are better insured (private) or taking into account the country they live in. This could partly be due to the fact that once their health condition worsens they seek access to healthcare and they experience these services first hand, having a more current perception of their satisfaction in this regard. In this regard, while women who have private health insurance are more satisfied with their healthcare access, as their health condition worsens or their income decreases, so does their healthcare satisfaction. Also women with public health insurance or no insurance tend to generally be less satisfied with their healthcare access satisfaction, although women in the rural or peri-urban areas tend to be more satisfied than those women in the large urban or capital areas. Clearly women with no insurance, which make up a significant portion of the sample, have to access the healthcare system through their own means, making their access limited to such means. In other words, women who have less income will access services which are affordable, which might prove lacking in various aspects, leaving a number of needs unmet. Additionally, as a large portion of the women in the sample are not employed in the formal sector their access to health insurance is diminished, making such access dependent on their own means.



Health condition remains a strong predictor of healthcare access satisfaction for Latin American women even when comparing country to country variations. While women in the rural and peri-urban areas of the country are generally more satisfied with their healthcare access, as their health worsens their satisfaction is significantly reduced, even if their income is increased, matching the lesser satisfaction perceived by those women living in the capital. However, these same women, whose health condition is worse living in the smaller cities/towns, are generally more satisfied with their healthcare access be they insured or not, although the better their health insurance the greater difference income makes in their overall healthcare access satisfaction. In this regard, income and location of home prove to be very strong predictors of healthcare access satisfaction for Latin American women, even after additional stratifications by health condition.

Country's healthcare spending per capita does not guarantee healthcare access satisfaction in Latin American women. While results show that greater healthcare spending per capita might have a positive or negative effect on healthcare access satisfaction in general depending on the country, care should be exercised when interpreting this result, as conditions throughout the different Latin American countries vary widely. However, when analyzing those countries with lower healthcare spending and higher healthcare satisfaction and vice-versa, we can see that income, location of home, health condition and health insurance remain strong predictors of healthcare access satisfaction. Also it should be noted that the orthogonal measure of health system ranking provides a clear scope of the lack in effect this measure has on satisfaction with access to healthcare for Latin American women overall.

It should be noted that country to country variations in healthcare organization (country fixed effects) play a greater role for women whose income is not sufficient, those women living in the peri-urban areas and those with no health insurance. In other words, those with greater income or those who live in the rural and large urban areas or those who have better health insurance might have more resources to compensate for the differences or deficiencies existing in their respective countries than

those women with less income or living in the peri-urban areas or those with no health insurance. However, when health condition is the main concern, country to country variations play a similar role throughout the region. It should be noted that the country fixed effect may also include other underlying factors affecting these country to country variations beside healthcare organization, such as patient expectations, beliefs or culture and others, leading to the differences in healthcare access satisfaction in women. Finally, stratified results clearly show that country health spending per capita and country health system ranking have no significant impact on women's healthcare access satisfaction throughout the region. Although an orthogonal measure of health system ranking was created to provide with an independent effect from healthcare spending per capita, the results confirm that this variable has no significant effect on healthcare access satisfaction for women in the region.

In general, the results were consistent across categories and through the various models although it should be noted that the smaller sample sizes resulting by running the stratified models reduced significance levels therefore diminishing the effects. However by running these different models, results generated by chance were avoided, as some variables could have appeared to have greater differential effects when running a certain model, helping confirm such results.

#### b) Limitations

Because the fixed-effects estimator is based on the differences from the mean, measurement error can be a problem, as measurement error in one time period can infect the observations from the other periods by altering their relative difference from the error affected mean.<sup>162</sup> However, by applying country cluster correction methods and comparing the relative magnitudes and effects, this limitation can be minimized. In addition, country-level fixed effects models or general cross-sectional linear regressions could amount to methodological individualism in cross-national comparative studies and considered insufficient for two reasons: a) countries with similar types of welfare-state regimes

should display similar population healthcare satisfaction outcomes as a result of the similarity between their health and welfare policies and b) it is unrealistic to merely assume that the countries are independent from one another, especially in an era of increased economic, political and cultural interdependence.<sup>163</sup>

As the sample is weighted the results can be generalized to the Latin American population although care should be exercised for the findings are limited to women and should not be necessarily assumed for the generality of the population. Given the comparable effects and magnitudes between non-linear and linear regression models, the latter were applied throughout the study to provide more interpretable results on the effects and magnitudes. In addition, running stratified models and treating satisfaction with healthcare access as continuous allowed for ease of interpretation and a clearer understanding of the results, while also adjusting for the other factors in the models.

Selection is a significant limitation to this study as the Latinobarometro respondents self-select into categories which could be interpreted as a “treatment group” vs. “non-treatment” groups based on their life experiences and history. As the control groups are non-equivalent, due to the lack of randomization, as we are not able to assign the persons to each of the groups, we must accept the composition generated as given and account for factors contributing to the differences of the population within those groups through statistical means by adjusting for the covariates.<sup>164</sup> In addition, as the Latinobarometro survey is based on self-reported data that is part of a public use file, the variables may be subject to measurement error, although it is understood that significant effort is put to avoid this throughout the different countries. Also, when dealing with various interviewers, instrumentation or testing threats may be present, as the interview could have been misunderstood or performed differently, clearly affecting the self-reported data by the respondents and generating some bias. In addition the predictions could be out of a feasible range, such as the fifth category where no access is present, and providing a greater range of possible results.

Omitted variable bias is another significant limitation to this study. For example one of the most common proxies used to measure access to healthcare and, therefore satisfaction with such access, is utilization. Utilization may be measured by such indicators as the average number of consultations or hospital admissions or it may be measured by the share of the relevant population receiving particular services first-hand; for example, the share of pregnant women who get prenatal care, of children who are fully immunized, or of people with diabetes who are receiving necessary chronic care. Other variables that could be included in the study but were not available were health condition assessment (by healthcare professional), availability of health services infrastructure, type of healthcare accessed (inpatient, outpatient, private, public, other), current health risks in the area/region and health behaviors amongst others. However while these variables were not included in the initial survey obtaining them from other sources was not plausible as they generally have not been quantified with some level of precision for the Latin American region or the individual countries in question. Furthermore, given the differences of population level characteristics and individual level characteristics present in these countries, the insertion of this data in the model from secondary sources might not prove adequate given the limitations present.

Although causality cannot be inferred by the cross-sectional analysis of the data, the sequential multiple linear regressions and stratified models could suggest potential mechanisms linking various factors which will merit further investigation in future studies. Pooling the results from different years provided a more robust and definite understanding as to the effect of the independent variables on the outcome of interest. However, as healthcare access satisfaction for a certain population could be based on values, beliefs or expectations due to cultural or contextual characteristics, the comparative studies performed between Latin American countries helped in increasing the understanding and association between the independent variables and the outcome of interest. A case could be made for existing differences in health infrastructures throughout the different countries, although this aspect was

partially adjusted for in the models by including current rankings of healthcare systems throughout the region. However, country fixed effect models help adjust for the underlying differences between these countries, providing with a better understanding of the effects and magnitudes. In addition, in cross-national analyses, there is a very real risk that regression results will be highly sensitive to a small number of influential cases. When our regression diagnostics suggested the presence of highly influential cases, these were rerun deleting those cases. As the basic pattern of results was not dramatically changed, confidence in the validity of the initial equations was enhanced.<sup>165</sup>

A variation in this discussion is whether some services have a greater impact than others and are, therefore, more significant in creating satisfaction with healthcare access. This argument is not easy to support, because the impact of services varies according to people's needs and expectations and it is difficult to arrive at a consensus on how services should be ranked in terms of importance. Moreover, there will probably be a significant underlying cultural variety between countries concerning this matter. For some people in some countries problems with certain services will be of greater significance than problems with other services. However this underlying effect could be contained in the country fixed effect and the comparisons resulting there from.<sup>166</sup>

## CHAPTER 4: CONCLUSIONS

Study after study has shown that there is no effective development strategy in which women do not play a central role. When women are fully involved, the benefits can be seen immediately: families are healthier and better fed; their income, savings and reinvestment go up.<sup>167</sup> And what is true of families is also true of communities and, in the long run, of whole countries. As women continue to be the first educators, caretakers and protectors of children, access to adequate and effective healthcare for them and their families is central to increasing the well-being and opportunities for Latin America.<sup>168,169</sup>

These studies explored the levels of women's satisfaction with access to healthcare in Bolivia and throughout eighteen Latin American countries. As women are faced with a number of risks and vulnerabilities that are particular to their gender which may impact their access to healthcare, their satisfaction or dissatisfaction suggests the extent in which Latin American countries need to take action to assure access to adequate healthcare services.<sup>170</sup> This study provides a benchmark for levels of satisfaction by country and factors associated with lower levels of satisfaction. It suggests areas in which improvements in systems can have substantial payoffs. As investments are made to transition to better health systems, ongoing analysis of survey data can be used to confirm that changes are having their intended effect.

### I. KEY FINDINGS

#### a) Bolivia

The study for Bolivia focused on the association between satisfaction with access to healthcare and income, location of home, ethnicity, health condition and health insurance, which proved to be important predictors of satisfaction for women in the country. Results show that lower income, poorer health status, and being uninsured or having public insurance are associated with lower satisfaction

levels for Bolivian women. Contrary to initial expectations, women living in rural and peri-urban are more likely to be satisfied with their access to healthcare when compared to those living in the capital, although indigenous Bolivian women tend to be less satisfied with their access in general. Without independent studies of actual healthcare use and accessibility, it is difficult to interpret these findings. While the health infrastructure in the rural and peri-urban areas might be comparable to that for most of the population living in the capital, it might also be the case that women's greater satisfaction might be due to different expectation levels in the rural or peri-urban areas, when compared to those women living in the urban areas of the country. While there are important limitations to the Latinobarometro data in this regard, future studies should look to ascertain these differences in expectations while also assessing health systems performance within the country.

Women in poor or fair health tend to be less satisfied with their access to healthcare. This could partly be due to the fact that once their health condition worsens they seek access to healthcare and they experience these services first hand, having a more current perception of the adequacy of access for ongoing care. Private health insurance may offer more access to care, as women who have private health insurance are generally more satisfied with their access to healthcare. Insurance is not sufficient, since even among the privately insured, as their income decreases so does their satisfaction. Health insurance differences between public and private schemes within the country are evident in the levels of satisfaction perceived by these women. Being uninsured, a status shared by significant portion of the sample, requires this population to access the healthcare system through their own means. With access limited to services they can afford, some needs may be unmet. A large portion of the women in the sample are not employed in the formal sector and so their access to public health insurance is diminished.

As maternal and child mortality and morbidity remain one the most important health challenges in Bolivia, most deaths related to pregnancy and childbirth in the country could be prevented through

appropriate access to and satisfaction of healthcare services.<sup>171,172,173</sup> As the 2004 study by the Economic and Social Policy Analysis Unit showed that 70% of the Bolivian population still experiences some form of exclusion from social protection systems for health, the implementation of the maternal and child healthcare programs, as benefit packages of the public health insurance scheme for Bolivia, can definitely help given the significant impacts found for income and insurance on satisfaction with access.<sup>174</sup> Furthermore, programs like Extensa, aimed to increase health coverage in remote rural communities through the use of mobile health teams financed by the World Bank, can prove fruitful for an ethnically and geographically diverse country like Bolivia.<sup>175</sup> Intra-agency coordination initiatives by the Ministry of health and various government agencies can also prove useful in increasing the much needed access to healthcare for Bolivian women throughout the country who need it most. However important these measures will be, one fundamental aspect will be the establishment of health information systems in the country. These systems should look to compile and analyze data on an ongoing basis to better measure women's access to and use of health services to aid in decision-making on improving healthcare systems.

#### b) Latin America

The studies for the Latin American region focused on the association of satisfaction with access to healthcare and income, location of home, health condition, health insurance and healthcare spending per capita for women. In multivariate analyses, lower levels of satisfaction with access were associated with lower income, poorer health status, and being uninsured or having public insurance (compared with having private insurance). When the sample is stratified by health condition, those in poor or fair health are less satisfied, even when they have greater income or are better insured (private) or taking into account the country they live in. Country to country variations in satisfaction with access to healthcare organization are wider for women whose income is insufficient, women living in the peri-



urban areas and those lacking health insurance. Greater national healthcare spending per capita does not guarantee satisfaction for women in the region.

Although healthcare utilization data was not available for the analyses, self-reported health condition provided a proxy for such utilization in trying to obtain a better understanding on the relationship between variables. Women in poor or fair health tend to be less satisfied with access to healthcare even when comparing country to country variations. This could partly be due to the fact that once their health condition worsens they seek access to healthcare and experience these services first hand, having a more current perception of their satisfaction. For example, while women who have private health insurance are more satisfied with their access to healthcare in general, as their health condition is worse or their income is less, their satisfaction with access decreases. Health insurance differences between public and private schemes are evident in the levels of satisfaction perceived by these women although further studies should aim to assess healthcare services utilization rates by these women in different health conditions to be able to ascertain the differences in expectations, while also assessing health systems performance within the region and individual countries. Contrary to expectations for the region, women in the rural and peri-urban areas of the country are generally more satisfied with their access to healthcare, although as their health condition is worse their satisfaction is significantly reduced, even if their income is increased. Once again, without independent studies of actual healthcare use and accessibility, it is difficult to interpret these findings, although it is clear that health condition has a strong association to satisfaction with access. While there are important limitations to the Latinobarometro data in this regard, future studies should look to ascertain these differences in expectations and health systems performance within and between the different countries in the region.

The studies for the Latin American region consistently show that women's income, health condition and type of health insurance are strongly associated with their satisfaction with access to

healthcare. Satisfaction levels with access to healthcare for the region were not high in general, which is why future studies should analyze how care is delivered and accessed within the region, which will require more information than the one provided by the Latinobarometro survey. Although causality cannot be inferred by the cross-sectional analysis of the data, the sequential multiple linear regressions and stratified models could suggest potential mechanisms linking various factors which will merit further investigation in these future studies. Country fixed effect models helped in adjusting for the underlying differences between these countries. However, as satisfaction with access to healthcare for a certain population could be based on values, beliefs or expectations due to cultural or contextual characteristics, the comparative studies performed between Latin American countries will help in increasing the understanding and association between the independent variables and the outcome of interest.

## II. IMPLICATIONS FOR HEALTH POLICY IN LATIN AMERICA

The primary focus of public health policy in Latin America should be on a systems approach to increasing equitable access for women to high quality healthcare services. From other data, it is clear that maternal mortality and the morbidity associated with its determinants are a major public health problem which highlights some of the most severe inequities in the region and reflects the health status of women of reproductive age, their access to health services and the quality of the care they receive. Given the significant impacts found here of insurance on satisfaction with access, implementing national universal health insurance schemes might prove an initial solution for most of the region's countries as it can provide benefits well in excess of the costs.<sup>176,177</sup> While improving the system that provides healthcare services is necessary for both preventing and treating many health conditions for women, the public sector should not ignore the interventions outside the health sector that can lead to dramatic reductions in deaths, illnesses and disabilities, such as education, sanitation and others.<sup>178</sup>

In terms of the structure and financing of the health sector for the Latin American region, there should be a reorientation of the sector so as to secure access to health insurance, by a safe mix of public and private providers and an increase in the coverage of primary and preventive health care services for women. Medical and public health training in local institutions should be geared towards the formulation and implementation of programs and projects that are equitable and adequate for these women, which incorporate their views and allow for participation in decision-making processes regarding their own health and, therefore, their futures.<sup>179</sup>

Although maternal mortality affects all social strata in the region, the fact that it is more prevalent among women from lower socio-economic strata makes it a poverty-related issue, especially given the lack of effective policies focusing on gender equality, as an end in itself and as a means for achieving development.<sup>180</sup> Given the significant impacts found here of income on satisfaction with access, policies in the region should ensure equal income opportunities for women while also focusing on their health access. Countries in the region should seek to remove all discriminatory provisions from their legislation and eliminate legislative gaps that leave women and girls without protection for their rights and without effective recourse against gender-based discrimination, as well as equitable access to education, health and employment.<sup>181</sup>

Given this backdrop, countries and international development agencies should continue to make a firm commitment to prioritize access to healthcare for women in the Latin American region, as they have done so far through the Millennium Development Goals charter and others. Some positive examples of progress being made in this area include Colombia's efforts to strengthen their public health surveillance systems and recent World Bank projects in Brazil and Argentina which also strengthen public health surveillance for women.<sup>182,183</sup> In addition, Argentina continues to participate in another World Bank project entitled "Essential Public Health Functions and Programs", which aims to increase the coverage of ten prioritized public health programs and to improve the steering role and

appropriate regulatory environment of Argentina's public health system which will impact women's health directly.<sup>184</sup> Intra-agency coordination initiatives by the ministries of health and various government agencies can also prove fruitful in increasing the much needed access to healthcare for Latin American women who need it most throughout the region.<sup>185</sup>

The data from the Latinobarometro illustrates how routine data collection on perceptions of the healthcare system can provide important insights into health system performance. Having data that would allow for adequate analysis of access and use of health services is critical to making meaningful improvements in health care and health insurance. Implementing adequate health information systems in the region should become a priority. These information systems should compile and analyze specific data on an ongoing basis, which will help better understand women's health situation in the region. While the Latinobarometro survey provides some important elements of the framework for analyses, a number of variables that could have been included to provide a clearer understanding should include utilization, health condition assessment (by a healthcare professional), availability of health services infrastructure, type of healthcare accessed (inpatient, outpatient, private, public, other), current health risks in the area/region and health behaviors amongst others. This additional data would have allowed for a better adjustment and, therefore, understanding of the associations between the key variables of interest and the outcome. International agencies can play a leadership role in helping implement information systems that compile and analyze all gender-sensitive health information and make it available for policy makers, researchers and analysts to facilitate the exchange of useful studies that could contribute to the formulation of well-formed policy for the region.<sup>186</sup>

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