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Unpaid Work, Time Use Surveys, and Care Demand Forecasting in Latin America

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■ Abstract

Women's share of the job market in Latin America is comparatively low, and employment-based indicators, especially as regards formal employment, thus furnish little information on the actual distribution of labor and resources in the population as a whole. Of late, time use surveys have been carried out in the region, providing a better understanding of work performed outside the marketplace and a basis for setting up new satellite accounts. Care demand in the period 2010-2050 has been forecast for the region as a whole and for selected countries (Brazil, Cuba, Argentina, Chile, Costa Rica, Ecuador, Mexico, the Dominican Republic, and Uruguay) by applying the Madrid II scale to the population projections set out in World Population Prospects.

■ Key words

Unpaid work, Latin America, time use, satellite accounts, care, demographic projections, Madrid II scale.

■ Resumen

La tasa de incorporación de las mujeres al mercado laboral en América Latina es comparativamente baja, por lo que los indicadores basados en el empleo, especialmente el empleo formal, aportan escasa información sobre la distribución real de esfuerzos y recursos entre toda la población. Recientemente, las encuestas de uso del tiempo se están implantando en la región, lo que permite conocer mejor el trabajo producido fuera del mercado y facilita la preparación de nuevas cuentas satélites. Mediante la aplicación de la escala de Madrid II a las proyecciones de población del World Population Prospects, se han analizado las previsibles demandas de cuidados en el horizonte 2010-2050 para toda la región y para algunos países seleccionados (Brasil, Cuba, Argentina, Chile, Costa Rica, Ecuador, México, República Dominicana y Uruguay).

■ Palabras clave

Trabajo no remunerado, América Latina, uso del tiempo, cuentas satélites, cuidado, proyecciones demográficas, escala de Madrid II.

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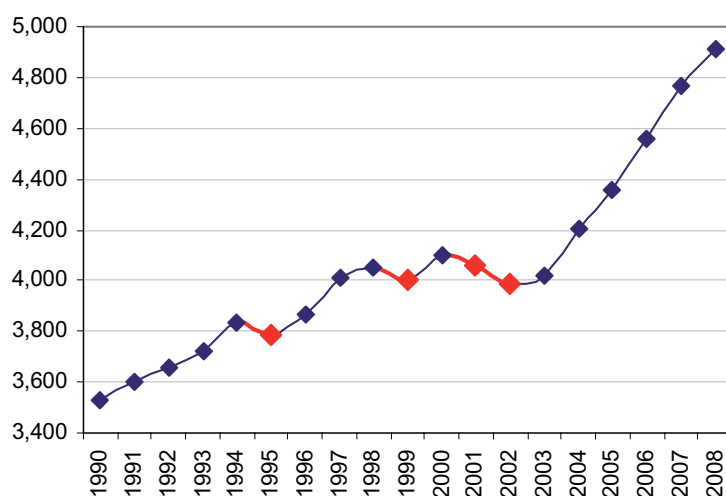
1. Introduction

THE Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) (1979) resolved to seek recognition for “the great contribution of women to the welfare of the family and to the development of society”.

Interest in the economic and social importance of unpaid work subsequent to this resolution has been spreading in Latin America, as in other regions, ever since the Fourth World Conference on Women, held in Beijing in 1995 under the auspices of the United Nations. Research into unpaid work has gradually been added to the political agenda. In 2001 the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) undertook a program to systematically compile and disseminate gender statistics for countries in the region to establish a system of indicators that would enable comparative analysis between nations. One of the areas in which statistical information was found to be most lacking was unpaid work in the home, essential for forecasting transfers between public services, households, and the marketplace. Family policies are, to a large extent, redistribution policies or compensation for unpaid work (Arriagada 2008).

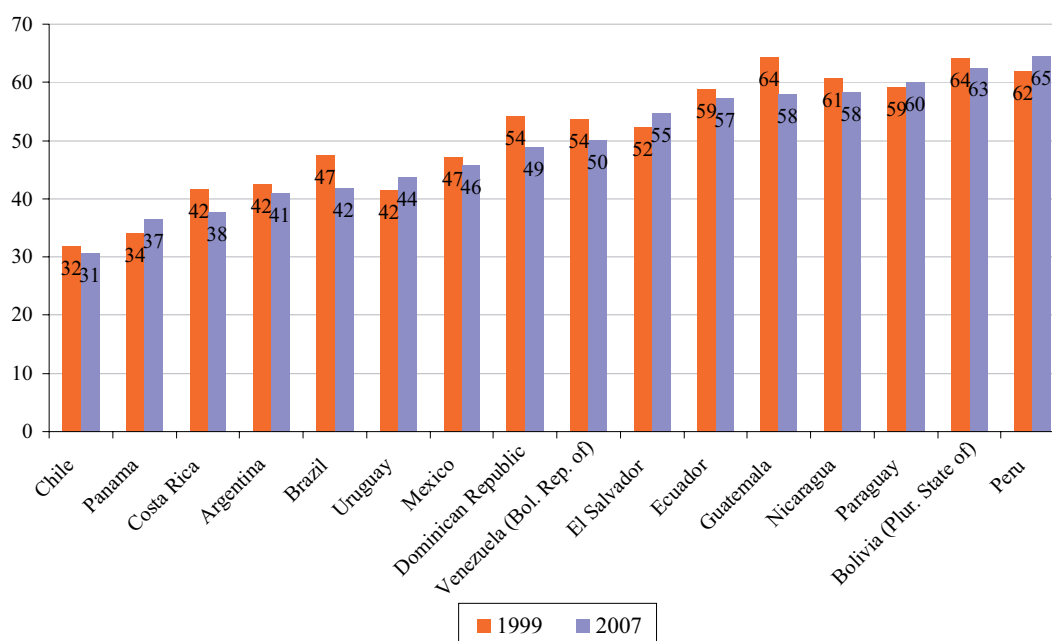
In a region where an estimated 13% of the population is poor, 12.9% of those in conditions of extreme poverty, a knowledge of remittances and non-monetized needs takes on special relevance (ECLAC, 2009: 9). Latin America as a whole has enjoyed continuous regional GDP growth since 2003 (Figure 1). While the distribution of wealth and income is unequal, the proportion of low-productivity jobs is quite high in all countries, and countries’ social structures are vulnerable to crises on account of the fragility of earnings and the risk of impoverishment (ECLAC, 2009: 70, 152 and 156) (Figure 2). New social policies in the region need to make provision for redistribution of paid and unpaid work and take account of the central role of care providers in the structure of the economy (ECLAC, 2010:184ff).

FIGURE 1: Latin America. Per capita GDP, 1990-2008 (in constant 2000 dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), based on official figures.

FIGURE 2: Latin America (17 countries): urban workforce in low-productivity sectors of the job market around 1997 and 2007¹ (in percent).



Source: Economic Commission for Latin America and the Caribbean (ECLAC). Social Panorama of Latin America (2009), Santiago de Chile, March 2009. Published by the United Nations.

¹ Data for Argentina are for Greater Buenos Aires for the years 1999 and 2007; for Chile for the years 2000 and 2006; for El Salvador for the years 1999 and 2004; for Guatemala for the years 2000 and 2008; for Mexico for the years 2002 and 2007; for Nicaragua for the years 1999 and 2005; for Peru for the years 1997 and 2009; and for the Dominican Republic for the years 2002 and 2007.

Some international organizations, like UNIFEM (United Nations Development Fund Women), have promoted meetings and joint projects with national statistical offices, research centers, and equality agencies to improve our understanding of unpaid work, which takes up a large part of the working time of women throughout the region.

The most suitable sources of information for deriving indicators relating to this area are *household surveys, income and expenditure surveys, living condition surveys, and time use surveys*. None of these is specifically aimed at elucidating unpaid work alone, but all of them furnish relevant information on the subject. Household surveys are the most widely used and exist in all countries in the region. Time use surveys have more recently emerged on the statistics scene, most often as a module of household surveys. Budgets for this type of survey do not have to be as high as for special purpose surveys, and these surveys are more readily included in planning by statistical offices (Milosavljevic and Tacla, 2007).

From 2002 to 2010 seven international meetings of experts on time use surveys were held, promoted by UNIFEM in association with INEGI (Instituto Nacional de Estadística y Geografía) and INMUJERES (Instituto Nacional de las Mujeres). ECLAC has supported these meetings since 2006, and they have been held in the framework of the Statistical Conference of the Americas.

In 2005 the Pan American Health Organization (PAHO) adopted a resolution whereby the Member States undertook to promote gender equality. It urged governments to include indicators of the value of unpaid time devoted by men and women to health care in the home and to relate these indicators to total expenditures for the health care system in their national health accounts.

Research into unpaid work and differences in time use obtained further recognition and support at the Tenth Session of the Regional Conference on Women in Latin America and the Caribbean, held in Quito in 2007. The Conference was attended by high-ranking officials of Latin American governments and international organizations along with representatives of civil society, researchers, and academics. Two of the Agreements contained in the official final act, known as the Quito Consensus, expressly recognized the contribution of unpaid work to the social and economic development of Latin America and the Caribbean.

Agreement no. XIV. *To adopt measures in all spheres of institutional democratic affairs and, in particular, in economic and social areas, including legislative measures and institutional reforms, to ensure recognition of unpaid work and its contribution to families' well-being and to countries'*

economic development, and to promote its inclusion in national accounts.

Agreement no. XXIII. *To develop instruments, especially time use surveys, for periodically measuring unpaid work performed by women and men in order to make such work visible and recognize its value, to incorporate their results into the System of National Accounts and to design economic and social policies accordingly.*

Article 338 and others in the recent Constitution of Ecuador expressly mention the need to ascertain and value unpaid work (Perez 2010). The Ecuadorian Constitution (2008) “recognizes as productive labor the unpaid work of self-sustenance and care of persons carried out within the household” (Instituto Nacional de Estadística y Censos, 2009: 12) (Article 333). The national government shall ensure all workers’ social security benefits, “including persons who perform unpaid work in the home” (Art. 34). Recently, the International Labour Organization has also taken up this principle (Messenger, 2010), exerting an influence throughout Latin America.

This paper forms part of a wider research project on unpaid work in the global economy, carried out in 2009 and 2010 under the direction of María Ángeles Durán and with the support of the BBVA Foundation. The great breadth of the work, which encompasses contributions from seven researchers, calls for multiple publications: a monograph (Durán 2012) and five working papers, including this one and those by Díaz and Llorente (2012), Rogero (2012), García Díez (2012) and Domínguez (2012).

The papers range over different types of unpaid work (childcare, care of elderly people), different research methods (demographic and econometric techniques) and different regions (Latin America, Africa); though each monographic contribution can stand alone as an independently produced piece of research, the various perspectives complement one another. All six publications are concerned to identify the differences between work and employment, seek an international perspective, use dependency scales (in particular, the Madrid II scale), introduce time horizons and, as far as possible, estimate the time demand involved in meeting unpaid care needs.

This working document puts forward a detailed consideration of the status of time use research in Latin America and assesses care demand forecasts based on demographic changes in the period from 2010 to 2050 for selected countries and for the region as a whole.

2. Time Use Surveys in Latin America and the Caribbean: Methodological Diversity and Advances

TIME use studies in Latin America have their roots in research into poverty, well-being, and work. They are based on the consideration that the conventional definition of work is too restricted and that unpaid work performed at home is key to understanding the subsistence mechanisms families use (Aguirre, García and Carrasco 2005:14ff).

Table 1 summarizes surveys containing information on time use conducted in Latin America and the methodologies employed. Like all tools based on extensive observation, time use surveys require considerable effort in terms of both budgets and agreeing on goals and procedures.

TABLE 1: Time use surveys in Latin America

No.	Country	Year	Coverage	Type	Reference period
1	Argentina	2005	Buenos Aires	Module	Average day
2	Bolivia	2001	National	Questions (1)	Day before
3	Brazil	2001-2005	National	Questions (2)	Week
4	Chile	2007	Metropolitan area	Separate survey	Yesterday
5	Cuba	2001	Pinar del Río, San Juan y Martínez, Old Havana	Separate survey	Day of survey
6*	Venezuela	2008	National	Separate survey	Weekday
	Venezuela	2009	National	Separate survey	
7	Uruguay	2003	Montevideo and metropolitan area	Separate survey	Week before interview
8	Colombia	2006, 2008	National	Module	Week
9	Costa Rica	2004	National	Module	Day before
10	Ecuador	2005	Quito, Esmeralda Province, and rural areas	Module	Week before
	Ecuador	2007	National	Module	Week before
11	El Salvador	2005	National	Module	Normal weekday
12	Guatemala	2000	Nationwide coverage of 8 regions	Module	Day before
	Guatemala	2006	Nationwide coverage of 8 regions	Module	Yesterday
13	Mexico	2002	National	Module	Week before interview
14	Nicaragua	1998	7 macroregions	Module	Day before interview
15	Panama	2005	National	Module	
16	Uruguay	2007	National	Module	Day

Source: Milosavljevic (2010).

* Bolivarian Republic of Venezuela since survey was held in 2008-2009.

Under way: Peru, 2009. Mexico, 2009. Brazil, 2009. Chile, 2009. Honduras, 2009. Bolivia, 2009-2010.

Considerable progress has been made inside of a decade, but certain major problems remain to be addressed. The different surveys employ diverse methodologies, making compa-

risson on an international basis difficult. There are differences in recruitment, subject coverage, *in situ* data collection methods, study population (household, individual, minimum age of interviewees), reference period (day before, week), and, in particular, the activities making up household work and the work of caregiving and the reporting of simultaneous activities. The lack of a standardized activity classification is viewed as the primary factor hindering the development and harmonization of this kind of survey. Developing a structure that will enable the criteria for reporting the many different activities carried out in the household in daily life to be defined, arranged, and unified in a way that can be associated with employment is a challenge that has yet to be met. The United Nations Statistics Division has drawn up an international classification of activities for time use statistics (ICATUS) that is in the trial stage. This classification needs to be validated for adoption as a standard time use classification for Latin America. A simplified classification of time use activities for Latin America and the Caribbean (acronym: CAUTAL) derived from ICATUS (Gómez Luna, 2010) is also undergoing trials.

For an idea of the methodological difficulties still encountered in measuring unpaid household work, even in countries that already employ time use modules, it suffices to note that Bolivia uses a single variable, i.e., total time spent on these activities the day before; the Ecuadorian database uses the variable hours spent on domestic chores; Guatemala and Nicaragua calculate this value by adding together the variables from the “household maintenance” submodule; while Mexico adds up the time spent weekly on subactivities making up household work. One of the still unresolved problems in most surveys available in the region is identifying the people in the home who demand care and those who provide it.

The advantage of adding time use modules to other more established surveys is, as already mentioned above, basically budgetary. Still, there are other advantages that should not be overlooked: on being combined with household surveys, access can be gained to the wealth of information contained in such surveys, e.g., information on individuals and the households where they live, geographical location, income and poverty levels, the labor force, workdays (time), the employment rate, and pay, which makes it possible to compare paid and unpaid activities. The drawback to adding modules to surveys is that lengthy questionnaires risk overwhelming interviewees.

One of the subjects to be improved in forthcoming versions of the surveys is how to identify household members in need of special care for reasons of health; current surveys address this issue in different ways, and the information is to be found in the data on econo-

mically active and economically inactive persons. Some surveys do not report reasons for the inactivity, others specify old age as a reason for not working, but all gloss over the information on the chronically ill and the degree of self-sufficiency of the disabled. A knowledge of the demand for care generated by persons who are dependent by reason of illness is vital to health and social services planning and also to the tax revenue system for government budgeting. Another topic that remains to be addressed is understanding and estimating the number of young people not included in the target population of the surveys. The minimum age varies from country to country and the contribution made by minors to unpaid household work varies considerably with place and socioeconomic level. Just as it is hard to gather information on child employment, it is also hard to collect information about household work performed by children.

By some estimates (Milosavljevic, 2008) the value of unpaid work is six times greater than the cost of salaries for all care-giving services, including pre-school, primary, and special education, health care, social welfare services (orphanages, rest and retirement homes, crèches, day-care centers), and domestic services generally.

3. Integration of Satellite Accounts in the Macroeconomic Framework in Latin America

SATELLITE accounts are tools for understanding production sectors that are poorly defined in the global national accounts. Satellite accounts exist for the environment, non-profits, tourism, health care, cultural activities, and other sectors. Satellite accounts for unpaid household work share three main features with the satellite accounts for the environment: they lack reference prices, they concern the population as a whole, and they have the demands of strong social movements behind them. Environmental problems in Latin America play a role in the major political decisions concerning development models, and the political and economic pressures on the Amazon and other regions are well known. Unpaid work is more socially and economically important in this region than it is in North America, Europe, and other developed regions because of the economic role of households and the limited availability of public services and the small pension system (Pedrero 2004). In extremely poor households in all countries in the region except Chile, the dependency index is equal to or greater than one (the number of dependent persons is equal to or greater than the number of persons between the ages of 14 and 64).

In contrast, in households above the poverty line, this index value drops to between 0.5 and 0.4 (ECLAC, 2009: 158). Poverty is associated with a high proportion of dependent persons in the household, preventing adults from participating in the job market.

A means of forecasting the consequences of exchanges between sectors is needed to be able to integrate the collective effort of work carried out in the home, in the marketplace, by volunteering, and by government. For now the establishment of satellite accounts that do not alter the production mechanism contemplated in the national accounts –though paving the way for more thoroughgoing reform in the future– is the most effective, though as yet rudimentary, means. As many analysts have pointed out, the current framework may still be broadened considerably, which is not an obstacle to seeking and developing additional alternative or complementary means.

One of the satellite account applications for households is their contribution to forecasts of public funding requirements. The tax system in the region is not well developed, though it has improved compared with the past (ECLAC, 2009:149). In their development policies, governments have to choose between increasing public services or limiting and privatizing them. Either case will bring about changes in the levels of transfers between the household, government, and business sectors that will affect savings rates, the system of taxation, and domestic demand. Anti-poverty programs are currently extremely important in the region, often involving non-contributory transfers of public funds to households. CCTs (Conditional Cash Transfer Programs) are non-contributory monetary programs and are intended to strengthen human capital within households and thus break the intergenerational reproduction of poverty. They benefit more than 22 million families in the region and account for 2.3% of total public social spending. Implementation of these programs is uneven, the most well-established being those in Brazil and Mexico (ECLAC, 2009: 30). Programs of this type are usually associated with patterns of conduct that require unpaid household work by responsible adults (ordinarily the mother), for instance, keeping children in school.

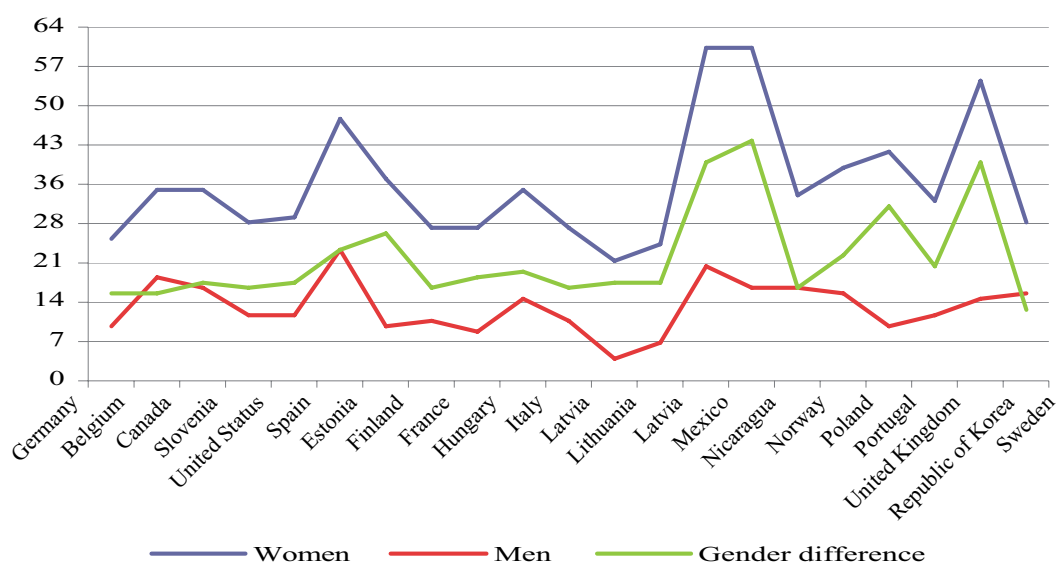
Notwithstanding the different methodologies and information gathering techniques employed, time use surveys carried out in Latin America all share the following findings:

- a) Men take less part in and spend less time on the household activities considered.
- b) Care-giving activities are among the most time-consuming. Women play a greater role in them and spend more time on them.

- c) Women who carry out paid work are not exempted from spending considerable time on household tasks. Irrespective of the length of their workdays, they spend much more time on these tasks than men do.
- d) The time spent on household tasks increases when there are pre-school children in the home, whereas that of men tends to be unchanging, and this trend holds for all countries.
- e) The presence of one member of the household dedicated to household tasks reduces the time spent on and involvement in these tasks by the other women living in the home. This situation does not affect the time spent by men, whose behavior does not change regardless of whether there is someone who takes care of these domestic chores in their home.

Figure 3 depicts the unequal amounts of time spent on child care by gender.

FIGURE 3: Time spent on child care by gender for the most recent years for which these data are available^a (in min/d)



Source: Latin American and Caribbean Demographic Centre (CELADE), Population Division of ECLAC, based on the United Nations Development Programme (UNDP) Human Development Report, 2007/2008. New York, Grupo Mundi-Prensa and special processing of time use surveys.

^{a)} For Canada, Ireland, Mexico, Portugal, and the United States, values include child care and care of adults with special needs or the elderly. In Costa Rica and Uruguay individuals aged 12 and older were surveyed, in Nicaragua individuals 6 and older were surveyed.

The difficulties encountered in collecting data on the time spent on unpaid housework are certainly substantial, but those involved in converting these data into monetary values are greater still. Besides the disparities in the time use estimates, there are the disparities in the

values assigned to each hour spent on unpaid housework. Table 2 presents estimates of the comparative value of unpaid housework and GDP in different countries.

TABLE 2: Value of unpaid household work in relation to the GDP of various Latin American countries

Country	% GDP	Value considered
CHILE Source: SERNAM, 2008 (Special TUS)	26% Urban metropolitan region Only	Mean monthly pay for two job categories (unskilled workers and personal service and protection workers)
GUATEMALA Source: ECLAC Sara Gammage	26-34% Guatemala In 2000	Estimated replacement cost is the cost of one domestic worker, service costs estimated using 2004 data based on disaggregation of the two-digit ISCO codes
NICARAGUA Source: INEC, 1998	23%	Average salary for agricultural workers in rural areas and for personal service workers in urban areas
MEXICO Source: INEGI, María Eugenia Gómez Luna	23.70%	Equivalent value of salary for one hour of work performed in an equivalent activity
URUGUAY Source: based on the CHS and TUS 2007 Ec. Soledad Salvador CIEDUR Montevideo, April 2009	26.60%	Replacement cost (unskilled worker's salary)
	26.90%	Replacement cost (unskilled worker's salary)
	30.60%	Opportunity cost
EL SALVADOR Source: Ec. Soledad Salvador Montevideo, April 2009	32.00%	Replacement cost (unskilled worker's salary)

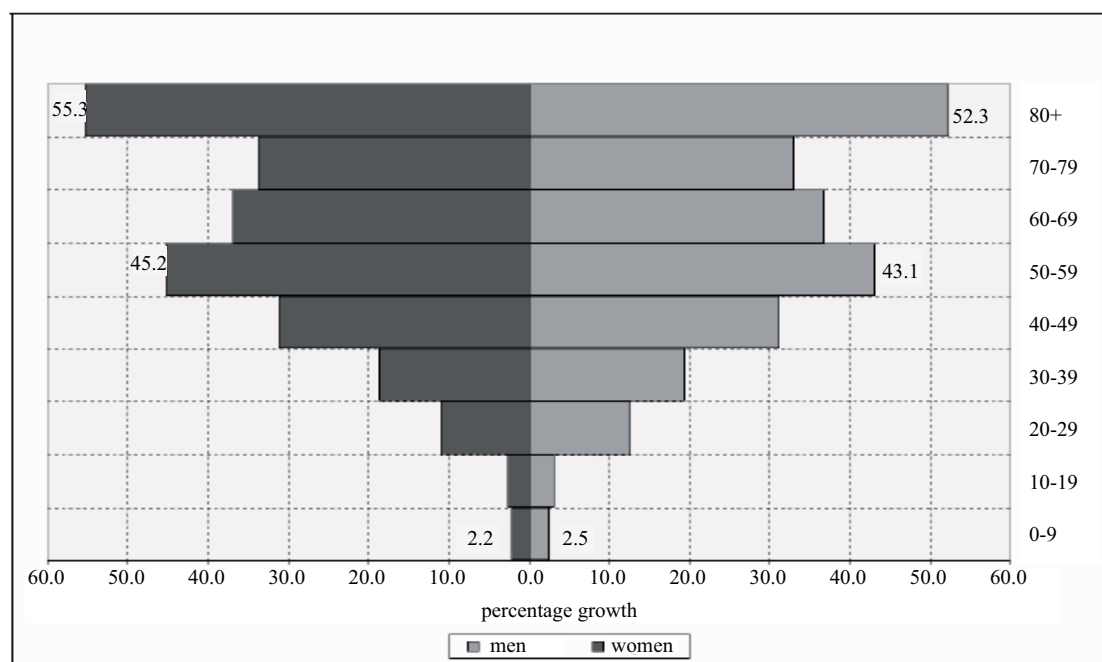
Source: Compiled by Milosavljevic and Durán (2010).

4. Care Demand Dynamics in Latin America

4.1. Regional demand, 1950-2050

The figure 4 below indicates that the total population of Latin America and the Caribbean will grow 4.36 times over the hundred years from 1950 to 2050. The type of care demand will change with alterations in the age structure. In absolute terms, the population of under-fives doubled between 1950 and 2010 but will decrease considerably by 2050. At the same time, the population of over-80s will increase from 0.7 to 40.1 million people in this same period, growing 12 times between 1950 and 2010 and 4.6 times between 2010 and 2050.

FIGURE 4: Percentage demographic growth in Latin America by sex and age, 2000-2010



Source: CELADE (2005: 13).

According to the WHO (2009), average healthy life expectancy in Latin America was 64 years in 2007. Men were then likely to live for a further eight years in poor health and women 10 years. Differences in the methodology employed by studies carried out in the region and real differences in health have yielded differing estimates of the prevalence of disabilities. Thus, 85% of over-80s have been estimated to suffer disabilities in Nicaragua, 28% of over-65s

in Argentina, 43% in Chile, and 54% in Brazil. These disparate figures ensuing from methodological differences nonetheless all point to an increased need for care for the elderly (ECLAC, 2009: 218).

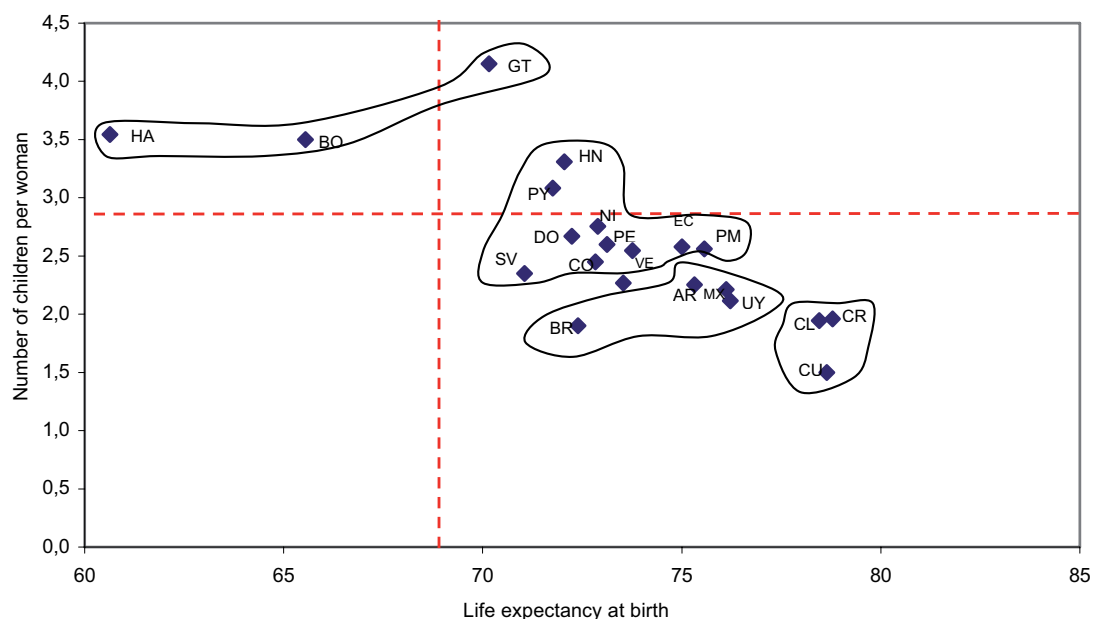
Aging means it will be necessary to address the needs of people who require daily living support and independent living support and at the same time to promote programs designed to safeguard the rights of the people who provide care for them, including the sharing of responsibility by men and women within the family (ECLAC, 2007).

The changes are even more pronounced if we focus on care requirements instead of on the population of Latin America in absolute numbers. The care demand estimates set out in the following pages are intended to point thinking towards a restructuring of public services and towards changing governments' budgetary allocations. By way of an example, if the number of over-80s in the population triples compared with an earlier period while budgetary allocations for that age group hold steady, funding will be available for only one-third of the services offered during the earlier period. To simplify the scenarios, care demand by age group has been assumed to be uniform and stable, even though this may not be the case. For instance, demand per child is quite likely to rise subsequent to a drop in the number of children, not only because the benefit of large family cost efficiencies will be lost, but also because parents will project their expectations for betterment onto their children, providing more *per capita* care than before, both within and outside the home (education, health, leisure services, etc.).

In 1950 children under five made up 16.1% of the population, but this age group will account for only 5.6% in 2050. In 1950 this group contributed 30.1% of the total care demand, but in 2050 its contribution will be just 10.5%. According to ECLAC, advances in early childhood education (0-5 years) and lengthening of the school day are recent but uneven across the region (ECLAC, 2009: 46). At the opposite extreme, over-80s represented only 0.8% of care demand at the beginning of the period, but in 2050 they will account for 10.4%.

Demographic transition stages differ in the Latin American and Caribbean countries, but as shown in Figure 5 in most countries average life expectancy is between 72 and 77 years and the number of children per woman is between 1.5 and 3.0 (ECLAC, 2009: 210).

FIGURE 5: Latin America and the Caribbean. Demographic transition stage by country (2005-2010) (in number of children per woman and life expectancy in years)



Source: CELADE (2006).

Latin America and the Caribbean are currently an emigration-producing region, and will continue to be so in the future, though at a lower rate. Emigration is higher from the countries of Central America and the Caribbean, where the annual rate can be up to 3%, than from the countries of South America. The cumulative generational effect of heavy emigration can depopulate certain segments, which could result in insufficient care providers in the medium term.

TABLE 3: Projected migration in Latin America and the Caribbean (in thousands and in percent)

Period	Latin America and Caribbean	%	Caribbean	%	Central America	%	South America	%
2010-2015	-794	-1.3	-116	-2.7	-478	-3.0	-201	-0.5
2015-2020	-698	-1.1	-108	-2.4	-424	-2.6	-166	-0.4
2020-2025	-626	-1.0	-98	-2.1	-385	-2.2	-143	-0.3
2025-2030	-612	-0.9	-97	-2.1	-372	-2.1	-143	-0.3
2030-2035	-611	-0.9	-97	-2.0	-372	-2.0	-143	-0.3
2035-2040	-612	-0.9	-96	-2.0	-373	-1.9	-143	-0.3
2040-2045	-613	-0.8	-96	-1.9	-374	-1.9	-143	-0.3
2045-2050	-613	-0.8	-96	-1.9	-375	-1.9	-143	-0.3

Source: Compiled by Durán and Milosavljevic from World Population Prospects data: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

TABLE 4: Care demand by age group in Latin America and the Caribbean, 1950, 2010 and 2050

	Population (in millions)			Population (in percent)			Care units* (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	167.3	588.6	729.2	100.0	100.0	100.0	268.1	853.8	1,156.4	100.0	100.0	100.0	2.8	2.2	2.5
Population aged 0-4	26.9	53.0	40.5	16.1	9.0	5.6	80.6	158.9	121.6	30.1	18.6	10.5	0.9	0.4	0.3
Population aged 5-14	40.4	109.8	83.7	24.2	18.7	11.5	80.9	219.6	167.5	30.2	25.7	14.5	0.9	0.6	0.4
Population aged 15-64	94.1	385.1	462.8	56.3	65.4	63.5	94.1	385.1	462.8	35.1	45.1	40.0	1.0	1.0	1.0
Population aged 65-80	5.2	32.1	142.1	3.1	5.4	19.5	10.3	64.1	284.2	3.8	7.5	27.6	0.1	0.2	0.6
Population aged 80+	0.7	8.7	40.1	0.4	1.5	5.5	2.1	26.1	120.3	0.8	3.1	10.4	0.0	0.1	0.3
Care unit to total population ratio	1.6	1.5	1.6												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

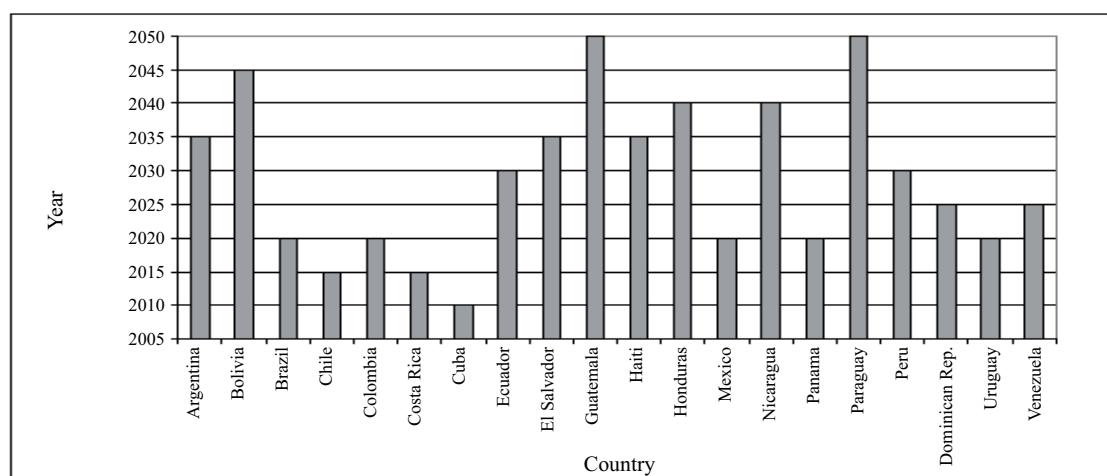
* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

Columns A and B in Table 4 have been compiled from United Nations demographic projections. Columns C and D are estimates derived by applying the Madrid II ratio scale to column A. As already mentioned, its intent is to pave the way for further research that yields more accurate estimates. It should be noted that applying the Santiago scale would roughly double the estimated care load, varying by country according to age composition on the dates considered. Column E is a theoretical case scenario and is meant to foster discussion and consideration of other, more complicated scenarios. It is for the case in which care demand generated by the overall population of Latin America and the Caribbean is met in full by the population aged 15-64 alone. If this were the case, every inhabitant in this age group would have had to provide 2.8 care units in 1950, that is, one for himself and 1.8 for others, 0.9 units for children under five and 0.1 units for people over 65 years of age. By 2010 the care load had decreased to 2.2 units, which is usually referred to as a “demographic dividend”¹. However, in 2050 the care load is projected to rise to 2.5 units (a negative dividend).

The case set out in column E is the easiest to calculate on the basis of available sources, but it is not particularly realistic. The care load fell chiefly on women both in 1950 and in 2010, and other theoretical scenarios need to take this into account. Instead of dividing by the entire population aged 15-64, it would be more realistic to divide by the population of women in that age group, which would roughly double the ratios. In this case, in 2050 each Latin American woman aged 15 to 65 would have a care load equal to the care of herself and another four persons of intermediate age. Obviously, the data put forward here are not intended as a standard but rather as a hypothetical exercise to facilitate general comparisons of care demand between countries and time periods.

¹ The *demographic dividend* refers to a period in which there is an increase in the working age population and a lowering of demographic dependency associated with a drop in fertility rates and hence in household size (ECLAC, 2009: 31).

FIGURE 6: Latin America and the Caribbean: Demographic dividend “end year” by country



Source: CELADE (2005: 14).

The scenarios may be made progressively more complex so as to better define the care-giving population, by assigning new age, gender (for instance, differently weighting the predisposition of men and women to shoulder the burden of care demand), occupational (for instance, assigning a different predisposition to workers, students, the unemployed, and housewives), health (for instance, differently weighting the predisposition towards care according to the self-perceived health level based on National Health Surveys and similar sources) and other criteria.

4.2. Some national projections

4.2.1. Regional diversity and incidence of single-parent households

Economic, demographic, and social structure in the Latin American and Caribbean region is diverse. Country size, market development the public service sector, rural-urban distributions, and the age and cultural compositions of the populations are all diverse. For these reasons global data are only useful as a first approximation. Subsequently, detailed considerations by country and, where possible, by rural and urban areas need to be undertaken. There follows a detailed analysis for certain countries in the region, starting with two countries with very different demographic conditions, Brazil and Cuba. Other countries occupy intermediate positions.

When considering childhood care demand, the high incidence of single parents and young mothers should be taken into account. In international comparisons, the categories “unmarried mother” and “single mother” have to be distinguished, the basic difference being the cohabitation and acceptance of responsibility by both parents, irrespective of the legal status of their relationship. In Chile, Brazil, Paraguay, Panama, and the Bolivarian Republic of Venezuela the risk of pregnancy for lower socio-economic class teenage women aged 15 to 19 years is four or five times higher than for upper-class women. The difference between wanted and real pregnancy is much greater among women lacking a formal education than among those who have received secondary or higher education (ECLAC, 2009: 211). Large single-parent households headed by women make up the largest share of households in the first and second income quintiles, not only because of women’s generally low earnings but also because of the high care load generated in their own homes (Arriagada, 2005).

4.2.2. Care demand in Brazil

The population of Brazil, the largest demographic power in the region, nearly quadrupled (growing 3.6 times) between 1950 and 2010, but according to the Madrid II scale, care units rose only 3.3 times. Proportionally, the care load per potential member of the labor force fell from 2.91 to 2.20, a 25% decrease. Demographic projections for 2050 put the population of Brazil at 218.5 million people, 23.1 million more than at the present time, an amount equivalent to the entire populations of various small and medium-sized countries in the region. Despite its large growth in absolute terms, in relative terms growth will only be 11.1% in the period between 2010 and 2050, a much slower rate than in the preceding period.

The rise in care demand levels after 2010 will be similar to that in the population, but taking care demand solely for people who are potential members of the labor force by reason of age (the 15-64 year-old age group), the level will rise from the current 2.20 units to 2.37, a 10.8% increase.

Domestic distribution of demand is a key data item, because it conditions the basis and degree of family commitments (support for children, same generation family members, and previous generation family members) and the design of private and public care provider services. In 1950 61.8% of total care demand in Brazil came from children under 15, and both legislation and codes of ethics had to be framed in terms of support for children and young

families, young women in particular. Economically, the only appropriate measures were ones where older generations took responsibility for the expenses generated by their children or grandchildren. Since children were minors without legal capacity, disputes or differences of opinion in acting on their behalf were unlikely to arise.

In 2050 demand by under-15s will only make up 23% of the total care demand and will be far outstripped by the demand by over-65s (34.7% of the total). Demand by over-80s, a subset of the former, will account for 13.1% of the total care demand. The elderly retain their legal capacity and potential for political action even though they may lose their economic self-sufficiency or health. Providing care to the elderly is related to their own economic and social behavior when they were younger (savings, payments into social security and other private insurance plans, good or bad family relationships) and in various ways can be connected both ethically and legally to the responsibilities of following generations. Unlike child care, in which the natural care providers are readily identifiable (children and parents are only one generation apart, there is only one biological mother or father, and they are unlikely to live in different households or regions), in caring for the elderly the generational distance may double because of the aged or economically dependent status of the immediately preceding generation, and physical and social distances likewise increase. Furthermore, the ethical and legal assignment of responsibility can be diluted by the presence of a number of descendants.

The duration of care in childhood is relatively short (15 years) and predictable, whereas the period of dependence as a consequence of aging is hard to predict on an individual basis, tends towards lengthiness, and is much more lasting than that of childhood. The biological ties between mother and child during infancy (pregnancy, birth, lactation) are very close, encouraging a larger role for women in public policies aimed at balancing work and personal life. However, there are no biological ties that justify linking gender to taking responsibility for the care of the elderly. Public policies regarding care for the elderly need to take into account its traditional assignment to women, but only as a starting point, not as a social goal to be sustained.

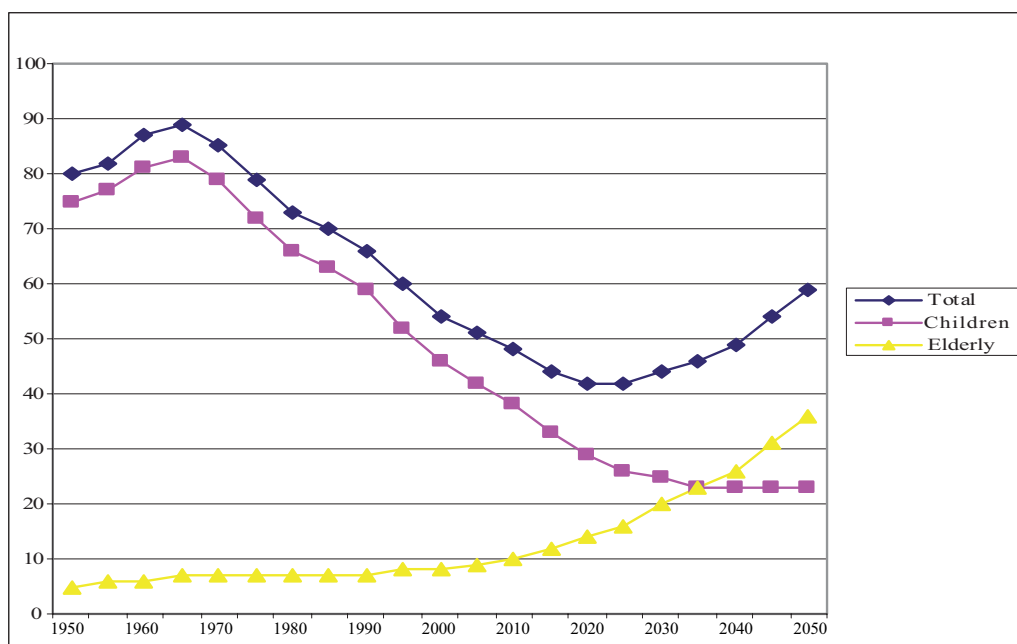
TABLE 5: Care demand by age group in Brazil, 1950, 2010 and 2050

	Population (in millions)			Population (in percent)			Care units* (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	53,975	195,423	218,512	100.0	100.0	100.0	87.2	291.0	324.5	100.0	100.0	100.0	2.9	2.2	2.4
Population aged 0-4	8,984	15,228	10,476	16.6	7.8	4.8	27.0	45.7	31.4	30.9	15.7	9.7	0.9	0.3	0.2
Population aged 5-14	13,448	34,540	21,622	24.9	17.7	9.9	26.9	69.1	43.2	30.9	23.7	13.3	0.9	0.5	0.3
Population aged 15-64	29,937	132,174	137,166	55.5	67.6	62.8	29.9	132.2	137.2	34.4	45.4	42.3	1.0	1.0	1.0
Population aged 65-80	1,453	17,732	35,115	4.9	22.6	37.8	2.9	35.5	70.2	3.3	12.2	21.6	0.1	0.3	0.5
Population aged 80+	153	2,879	14,133	0.3	6.3	15.6	0.5	8.6	42.4	0.5	3.0	13.1	0.0	0.1	0.3
Care unit to total population ratio	1.61	1.48	1.48												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

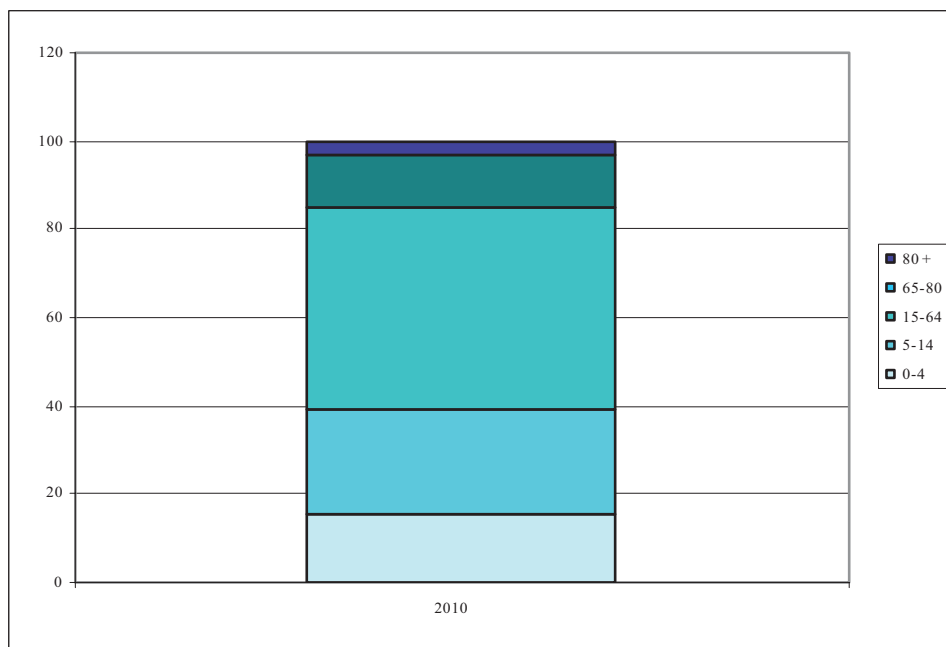
FIGURE 7.1: Dependent population by age in Brazil, 1950-2050*



* Cohort population as a percentage of the population aged 15-64.

Source: Compiled by M.A. Durán using data from World Population Prospects.

FIGURE 7.2: Care demand breakdown in Brazil in 2010



Source: Compiled by M.A. Durán using data from World Population Prospects.

4.2.3. Care demand in Cuba

The situation in Cuba can be taken as a counterpoint to that of Brazil. In 1950 the population was 5.9 million, which had doubled by 2010 (11.2 million). According to the Madrid II scale, each adult in the middle population group (aged 15-64) had to provide 2.61 care units at the beginning of the period, compared with only 1.95 in 2010. The care load per adult is thus lighter, dropping by 25.3% during the period. The composition of demand has also changed substantially: in 1950 under-15s accounted for 55.6% of the care demand, whereas at the present time they contribute only 28.9%. By contrast, demand by the elderly was initially only 6.1% of total demand but today accounts for 19.9%. While the global care load has decreased, the proportion given over to the elderly has tripled.

Projections suggest that in 2050 Cuba will have lost population, with only 9.7 million inhabitants. Care demand will have a small childhood component (17.2% of the total), but demand by the elderly will be central, at 66.7% of the total care. This sharp increase in aging will make the share of demand on each adult in the middle age group larger than it was a century earlier, 2.78 units per adult, which is nearly twice the level in 2010. The population's standard of living will depend on the provision and distribution of care, by families in the home (residential resettlement), by public services, by purchase in the marketplace, or by other new care provider systems that may come into being by then.

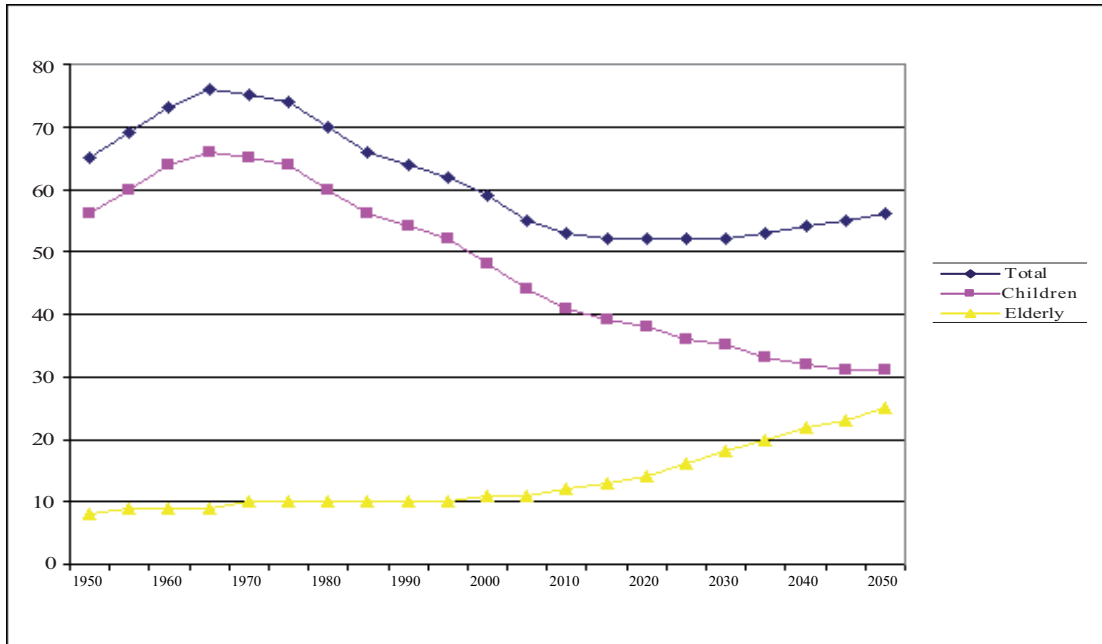
TABLE 6: Care demand by age group in Cuba, 1950, 2010, 2050

	Population (in millions)			Population (in percent)			Care units* (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	5,920	11,204	9,725	100.0	100.0	100.0	9.1	15.4	15.4	100.0	100.0	100.0	2.6	2.0	2.8
Population aged 0-4	776	580	366	13.1	5.2	3.8	2.3	1.7	1.1	25.5	11.3	7.1	0.7	0.2	0.2
Population aged 5-14	1,376	1,358	782	23.2	12.1	8.0	2.8	2.7	1.6	30.1	17.6	10.1	0.8	0.3	0.3
Population aged 15-64	3,508	7,887	5,554	59.2	70.4	57.1	3.5	7.9	5.6	38.4	51.2	36.0	1.0	1.0	1.0
Population aged 65-80	223	1,075	1,848	4.4	12.3	31.1	0.4	2.2	3.7	4.9	14.0	23.9	0.1	0.3	0.7
Population aged 80+	37	304	1,175	0.6	2.7	12.1	0.1	0.9	3.5	1.2	5.9	22.8	0.0	0.1	0.6
Care unit to total population ratio	1.54	1.37	1.58												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

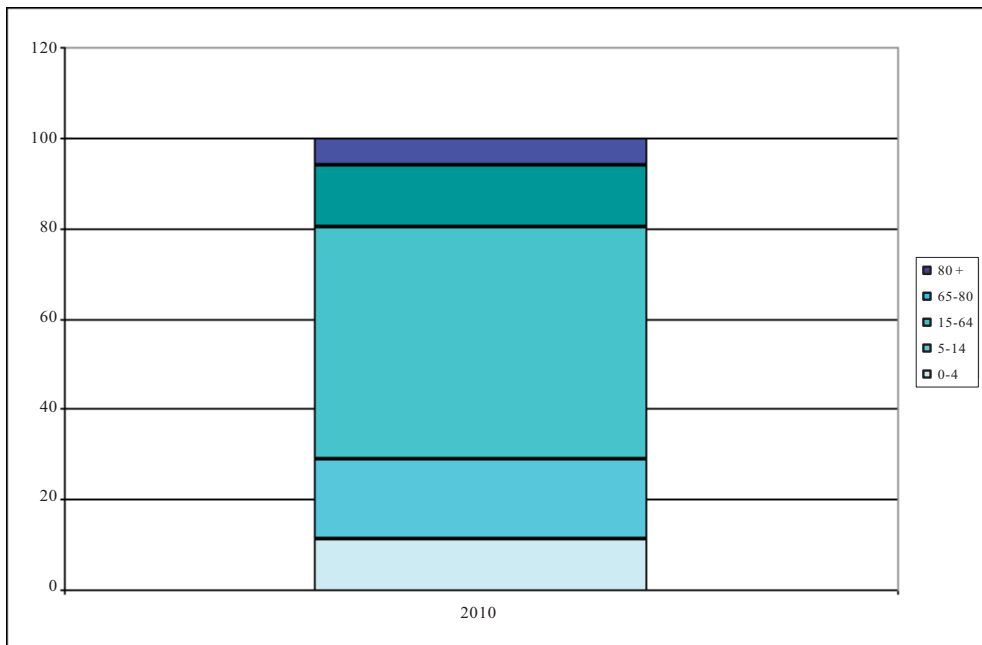
FIGURE 8.1: Dependent population by age in Cuba, 1950-2050*



* Cohort population as a percentage of the population aged 15-64.

Source: Compiled by M.A. Durán using data from World Population Prospects.

FIGURE 8.2: Care demand breakdown in Cuba in 2010



Source: Compiled by M.A. Durán using data from World Population Prospects.

4.2.4. Care demand in Argentina

Argentina had a population of 17.1 million inhabitants in 1950, had 40.6 million inhabitants in 2010, and is projected to have 50.9 million inhabitants in 2050. *Per capita* total care does not change much over the century, but the demand age structure is set to change radically. In 1950 children made up 49.4% of demand, while in 2050 they will account for only 27.9%. Care for the elderly, in contrast, will go from 6.6% to 29.3%, which means care services, the care budget, and legislation providing for care rights and obligations will have to be reorganized. The load distribution will represent a considerable challenge, because one in four of the country's inhabitants will have passed the theoretical retirement age.

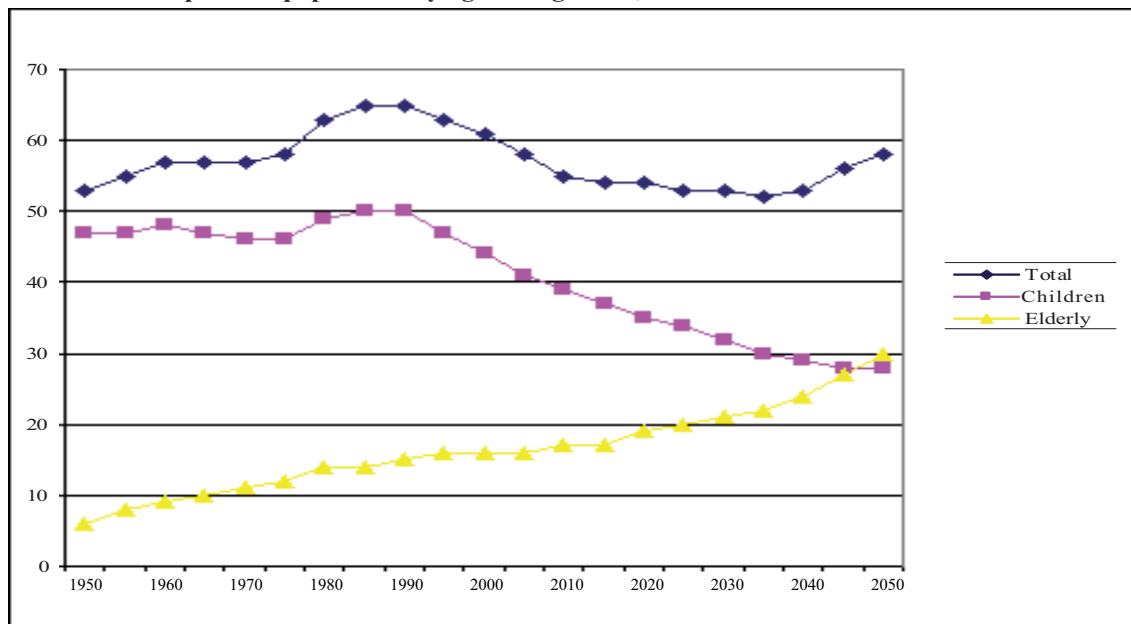
TABLE 7: Care demand by age group in Argentina, 1950, 2010 and 2050

	Population (in millions)			Population (in percent)			Care units * (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	17,150	40,666	50,943	100.0	100.0	100.0	25.1	59.6	75.4	100.0	100.0	100.0	2.2	2.3	2.3
Population aged 0-4	1,947	3,401	2,972	11.4	8.4	5.8	5.8	10.2	8.9	23.2	17.1	11.8	0.5	0.4	0.3
Population aged 5-14	3,288	6,721	6,061	19.2	16.5	11.9	6.6	13.4	12.1	26.2	22.6	16.1	0.6	0.5	0.4
Population aged 15-64	11,194	26,207	32,178	65.3	64.4	63.2	11.2	26.2	32.2	44.5	44.0	42.7	1.0	1.0	1.0
Population aged 65-80	639	3,277	7,041	4.2	10.7	19.1	1.3	6.6	14.1	5.1	11.0	18.7	0.1	0.3	0.4
Population aged 80+	82	1,061	2,692	0.5	2.6	5.3	0.2	3.2	8.1	1.0	5.3	10.7	0.0	0.1	0.3
Care unit to total population ratio	1.46	1.46	1.48												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

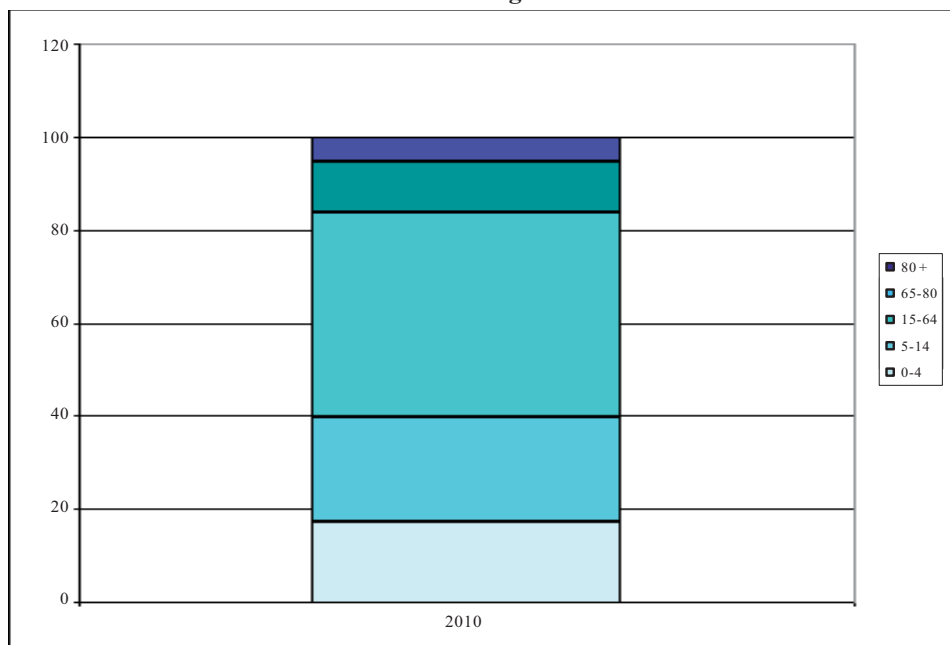
FIGURE 9.1: Dependent population by age in Argentina, 1950-2050*.



* Cohort population as a percentage of the population aged 15-64.

Source: Compiled by M.A. Durán using data from World Population Prospects.

FIGURE 9.2: Care demand breakdown in Argentina in 2010



Source: Compiled by M.A. Durán using data from World Population Prospects.

4.2.5. Care demand in Chile

Chile's population nearly tripled between 1950 and 2010, but the global *per capita* care load on the population aged 15-64 fell by 20%. By 2050 Chile will have attained a population of 20.6 million people, and the *per capita* care load will increase by 16% compared with 2010. The change is not drastic, but it is sufficiently large to require a restructuring of all aspects of family, business, and public care systems.

Demand composition has already changed substantially since 1950: childhood demand accounted for 56.3% of total demand in 1950 but only 35.7% in 2010, equivalent to a decrease of one-fifth in relative terms. Demand generated by the elderly has tripled, from 5.7% of total demand to 17.0%. The increase in the population over 80 is particularly striking; demand by this segment was less than 1% of the total in 1950 but 12.8% in 2010. Proportionately, it now takes up 14 times more care resources than before.

The share of care demand generated by children will continue its downward trend and will be only 25.3% of total demand by 2050. In contrast, demand by the elderly will take up 34.2% of resources, exceeding demand for children's care appreciably. It should be noted that nearly half of the demand generated by the elderly will come from the over-80 segment. This group will contain large numbers of people without spouses, women, and people with very meager economic resources.

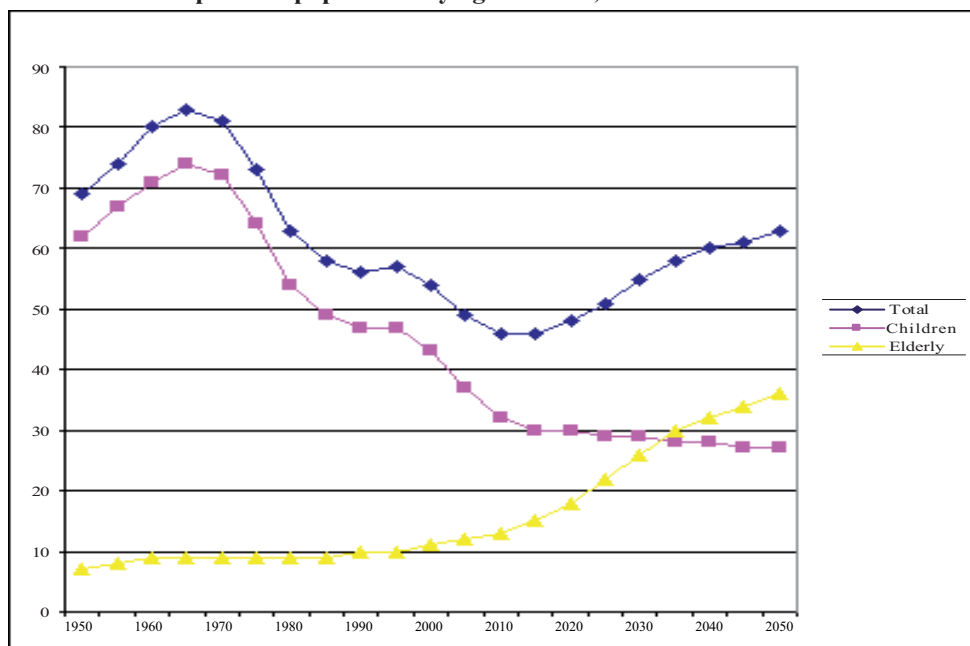
TABLE 8: Care demand by age group in Chile, 1950, 2010 and 2050

	Population (in millions)			Population (in percent)			Care units * (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	6,082	17,135	20,657	100.0	100.0	100.0	9.5	24.8	31.3	100.0	100.0	100.0	2.6	2.1	2.5
Population aged 0-4	867	1,248	1,123	14.3	7.3	5.4	2.6	3.7	3.4	27.5	15.1	10.8	0.7	0.3	0.3
Population aged 5-14	1,366	2,566	2,284	22.5	15.0	11.	2.7	5.1	4.6	28.9	20.7	14.6	0.8	0.4	0.4
Population aged 15-64	3,590	11,738	12,679	59.0	68.5	61.4	3.6	11.7	12.7	37.9	47.3	40.5	1.0	1.0	1.0
Population aged 65-80	231	521	2,994	4.3	9.2	22.1	0.5	1.0	6.0	4.9	4.2	19.1	0.1	0.1	0.5
Population aged 80+	28	1,061	1,576	0.5	2.6	7.6	0.1	3.2	4.7	0.9	12.8	15.1	0.0	0.3	0.4
Care unit to total population ratio	1.55	1.45	1.51												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

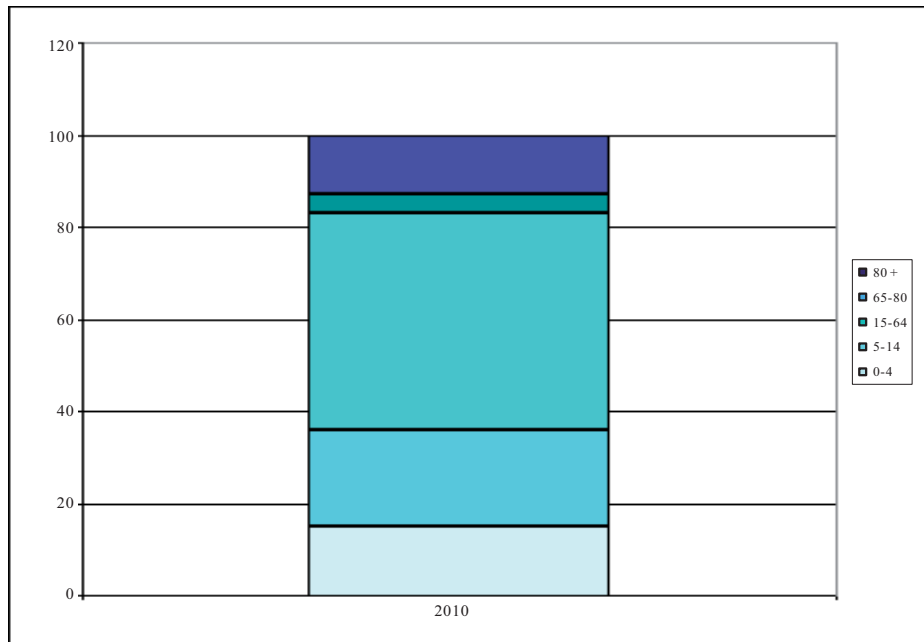
FIGURE 10.1: Dependent population by age in Chile, 1950-2050*



* Cohort population as a percentage of the population aged 15-64.

Source: Compiled by M.A. Durán using data from World Population Prospects.

FIGURE 10.2: Care demand breakdown in Chile in 2010



Source: Compiled by M.A. Durán using data from World Population Prospects.

4.2.6. Care demand in Costa Rica

The population of Costa Rica rose from 0.9 million in 1950 to 4.6 million in 2010. At the beginning of the period the demand for child care was 59.0% of total demand. In 2010 demand for child care was only 41.5%, with the middle population age group accounting for 48.3%. Demand for elderly care is still moderate. The care load has diminished considerably since the beginning of the period (a drop of 27%) and is low for Latin American countries. By 2050, as in many other countries in the region, the care load will have increased due to aging, accounting for 2.36 care units per potential member of the labor force. By then care demand from the elderly will have amply outpaced child care demand (31.1% to 26.4%), hence all private and public care systems will need restructuring.

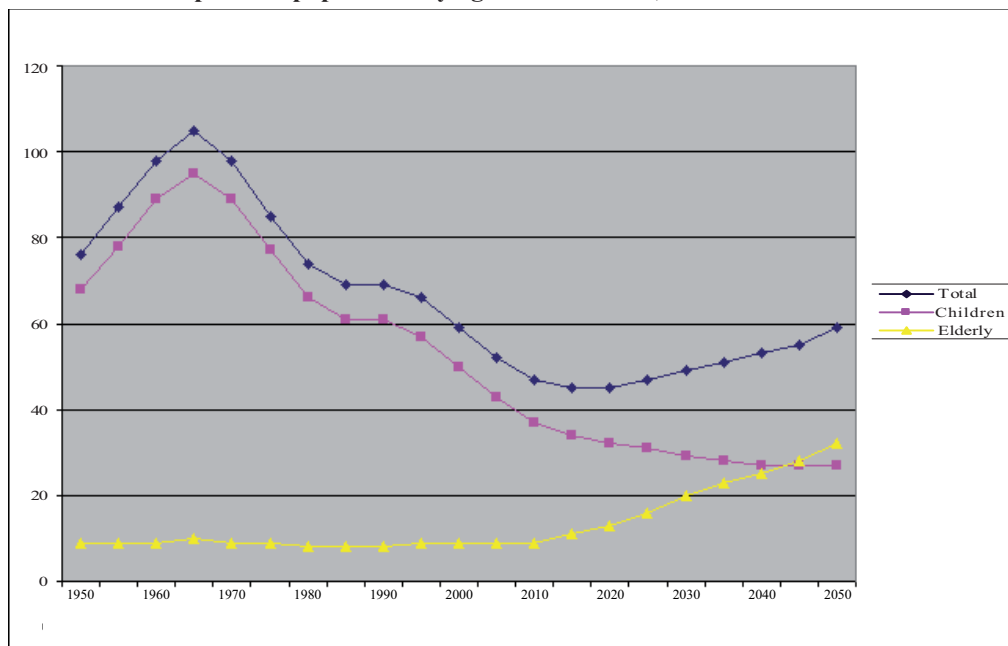
TABLE 9: Care demand by age group in Costa Rica, 1950, 2010 and 2050

	Population (in millions)			Population (in percent)			Care units * (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	966	4,640	6,373	100.0	100.0	100.0	1.5	6.6	9.5	100.0	100.0	100.0	2.8	2.1	2.4
Population aged 0-4	155	370	352	16.1	8.0	5.5	0.5	1.1	1.1	30.1	16.9	11.2	0.8	0.4	0.3
Population aged 5-14	216	805	724	22.4	17.4	11.4	0.4	1.6	1.4	28.0	24.6	15.3	0.8	0.5	0.4
Population aged 15-64	548	3,164	4,017	56.7	68.2	63.0	0.5	3.2	4.0	35.5	48.3	42.4	1.0	1.0	1.0
Population aged 65-80	42	231	892	4.8	6.5	20.1	0.1	0.5	1.8	5.4	7.1	18.8	0.2	0.1	0.4
Population aged 80+	5	69	388	0.5	1.5	6.1	0.0	0.2	1.2	1.0	3.2	12.3	0.0	0.1	0.3
Care unit to total population ratio	1.59	1.41	1.48												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

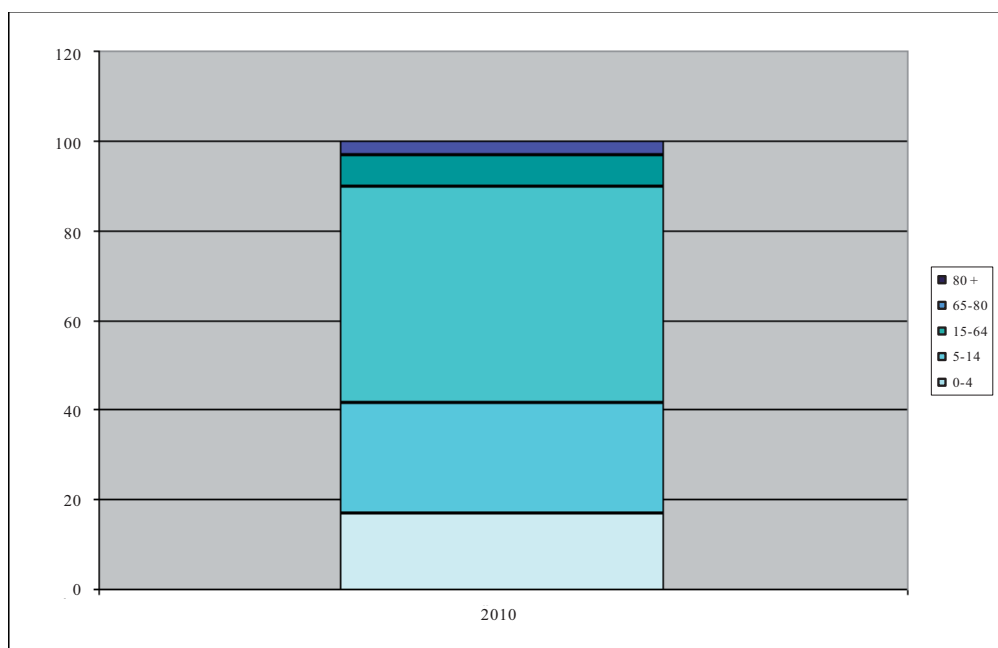
FIGURE 11.1: Dependent population by age in Costa Rica, 1950-2050*



* Cohort population as a percentage of the population aged 15-64.

Source: Compiled by M.A. Durán using data from World Population Prospects.

FIGURE 11.2: Care demand breakdown in Costa Rica in 2010



Source: Compiled by M.A. Durán using data from World Population Prospects.

4.2.7. Care demand in Ecuador

As mentioned previously, aging will change the care structure and the volume of care demand in the coming decades. By 2050 the share of each adult in the middle age group in Ecuador will be 2.43 care units, a 10% increase with respect to the share today, not particularly considerable in comparison with other countries in the region. However, the structure of care services will have to be changed, requiring the corresponding changes in public opinion and in the legal and economic systems, since demand by the elderly will make up 33.7% of the total care demand. One-third of the demand for elderly care will come from people in their 80s and 90s, a societal group in which the need for care increases along with the difficulty in obtaining care within the family setting or obtaining care within the family's own economic means.

There was a sizeable demographic boom in Ecuador between 1950 and 2010, with population growing four times over the period. In 1950 child care made up 58.8% of the country's total care demand, and the *per capita* care load on persons in the middle age group (15-64 years) was higher than for the Latin American region as a whole, at 2.92 units. Since that time, the care load has gradually decreased to 2.37 in 2010, a 19% reduction. Unlike the other countries considered here, the care load will continue to decrease in the coming decades. Based on demographic projections, the care load in 2050 will be only 2.29 care units per potential member of the labor force, a decrease of 3.4% compared with 2010, giving this country one of the lowest care loads in the region.

The composition of demand varied between 1950 and 2010, with a decrease in the demand for child care (dropping from 58.8% to 48.5% of total demand) and a proportionate increase in the demand for care by adults of intermediate age, but there has not yet been a heavy increase in demand for care by the elderly. The results of the demographic transition will be discernible by 2050: the share of care for the population in the middle age group will remain nearly the same as today, but the share of child care will decline and the share of elderly care will rise sharply, to 27.1% of the total demand. Nearly a third of the demand for elderly care will be for persons in their 80s and 90s.

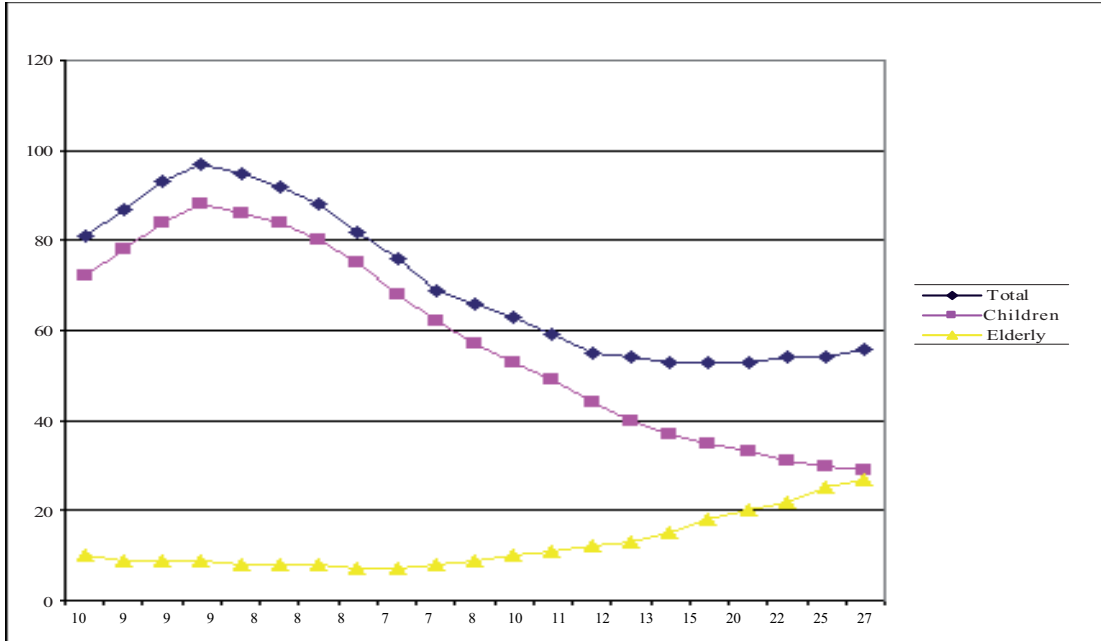
TABLE 10: Care demand by age group in Ecuador, 1950, 2010 and 2050

	Population (in millions)			Population (in percent)			Care units * (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	3,387	13,775	17,989	100.0	100.0	100.0	5.5	20.5	26.4	100.0	100.0	100.0	2.9	2.4	2.3
Population aged 0-4	535	1,371	1,076	15.8	10.0	6.0	1.6	4.1	3.2	29.4	20.1	12.2	0.9	0.5	0.3
Population aged 5-14	803	2,846	2,240	23.7	20.7	12.5	1.6	5.7	4.5	29.4	27.8	17.0	0.9	0.7	0.4
Population aged 15-64	1,869	8,639	11,535	55.2	62.7	64.1	1.9	8.6	11.5	34.2	42.2	43.6	1.0	1.0	1.0
Population aged 65-80	161	721	2,227	5.3	6.7	17.4	0.3	1.4	4.5	5.9	7.0	16.9	0.2	0.2	0.4
Population aged 80+	19	198	911	0.6	1.4	5.1	0.1	0.6	2.7	1.0	2.9	10.3	0.0	0.1	0.2
Care unit to total population ratio	1.61	1.48	1.46												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

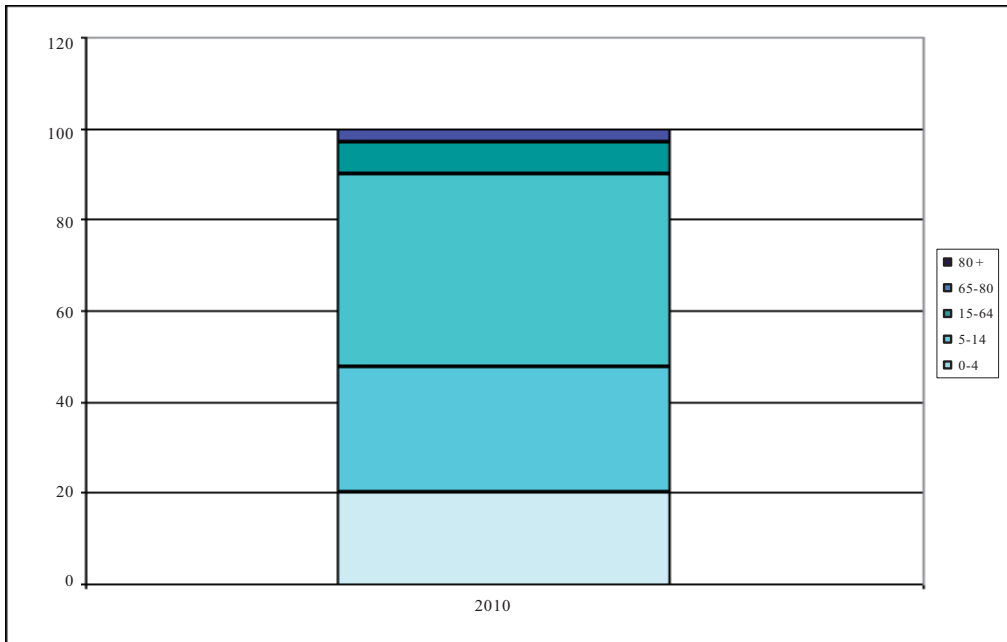
FIGURE 12.1: Dependent population by age in Ecuador, 1950-2050*



* Cohort population as a percentage of the population aged 15-64.

Source: Compiled by M.A. Durán using data from World Population Prospects.

FIGURE 12.2: Care demand breakdown in Ecuador in 2010



Source: Compiled by M.A. Durán using data from World Population Prospects.

4.2.8. Care demand in Mexico

Mexico's population nearly quadrupled between 1950 and 2010 (an increase of 398%). By way of comparison, in 1950 its population was similar to that of Spain (28 million), whereas today it is two and a half times larger. According to demographic projections, in the next 40 years population growth will slow, to a modest 16% for the period 2010-2050 as a whole. The most spectacular transformation in the first part of the period has been the increase in children, from 11 million children under 15 in 1950 to over 30 million today, due in large measure to reductions in child mortality. The peak came in the year 2000, at 32 million children, followed since then by the beginning of a slow decline brought about by lower birth rates.

Although not so numerous in absolute terms, proportionately the rise in the number of elderly persons has been even larger than for children. In 1950 there were only 176,000 80 and 90-year-olds. In 2010 there were already a million and a half, and by 2050 there will be eight million, a number on a par with the entire present-day populations of Uruguay and Costa Rica together.

The care load was extremely high in 1950 (3.03 care units per adult in the middle age group) and declined to a moderately low load (2.21 units) in 2010. This is a decrease of more than 27%; over a quarter of the care load has dissipated, placing Mexican society at an ideal juncture where resources can be committed to all sorts of other activities. Today, children are responsible for 44.8% of care demand, while the elderly generate only 10.0%, so for the time being there is no pressing need for large changes in the system of care provision.

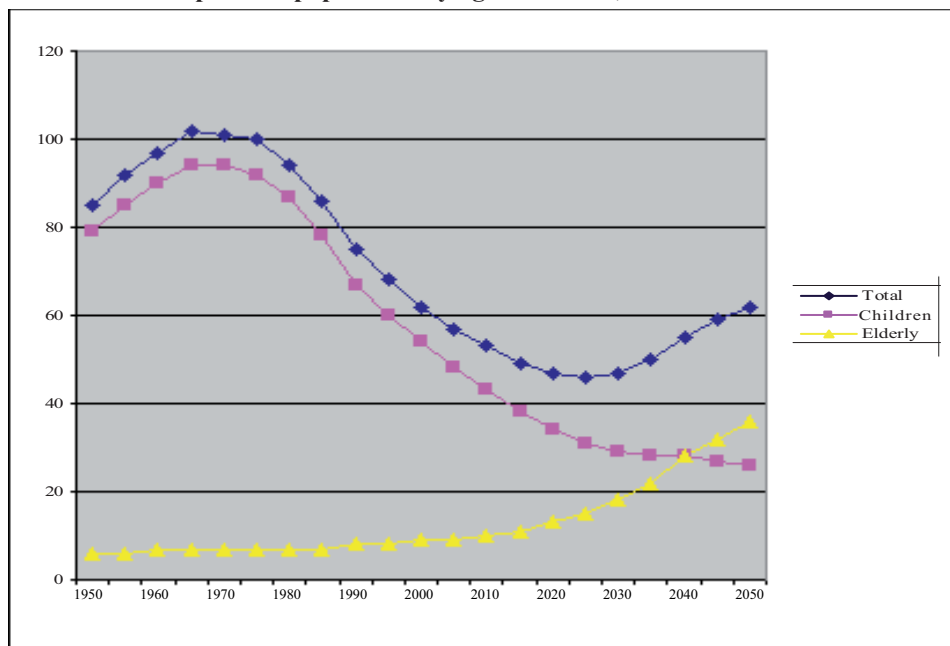
TABLE 11: Care demand by age group in Mexico, 1950, 2010 and 2050

	Population (in millions)			Population (in percent)			Care units * (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	27,741	110,645	128,964	100.0	100.0	100.0	45.4	160.4	193.2	100.0	100.0	100.0	3.0	2.2	2.4
Population aged 0-4	4,773	10,042	6,791	17.2	9.1	5.3	14.3	30.1	20.4	31.5	18.8	10.5	1.0	0.4	0.3
Population aged 5-14	7,004	20,876	14,124	25.2	18.9	11.0	14.0	41.8	28.2	30.8	26.0	14.6	0.9	0.6	0.4
Population aged 15-64	15,002	72,476	79,495	54.1	65.5	61.6	15.0	72.5	79.5	33.0	45.2	41.2	1.0	1.0	1.0
Population aged 65-80	786	5,704	20,610	2.8	5.2	16.0	1.6	11.4	41.2	3.5	7.1	21.3	0.1	0.2	0.5
Population aged 80+	176	1,547	7,944	0.6	1.4	6.2	0.5	4.6	23.8	1.2	2.9	12.3	0.0	0.1	0.3
Care unit to total population ratio	1.63	1.45	1.49												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

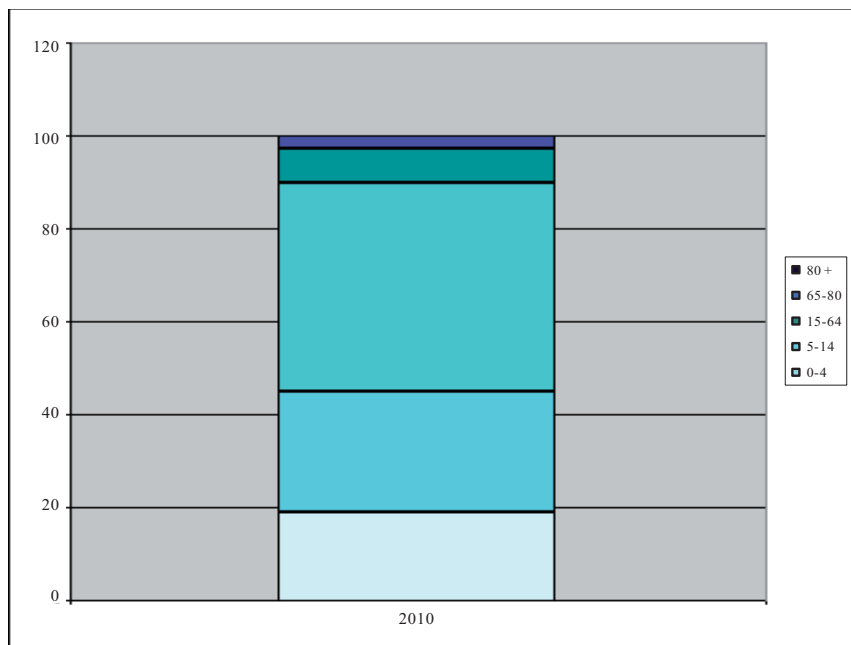
* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

FIGURE 13.1: Dependent population by age in Mexico, 1950-2050*



* Cohort population as a percentage of the population aged 15-64.
 Source: Compiled by M.A. Durán using data from World Population Prospects.

FIGURE 13.2: Care demand breakdown in Mexico in 2010



Source: Compiled by M.A. Durán using data from World Population Prospects.

4.2.9. Care demand in the Dominican Republic

The Dominican Republic underwent some of the strongest demographic growth in the region over the period 1950-2010, with population increasing more than four times. At the beginning of the period the population was under two and a half million inhabitants, whereas today the population is 10.2 million, similar to that of countries with traditionally larger populations, such as Portugal (10.7 million), and approaching that of Cuba (11.2 million).

The number of children peaked in 2010 and has since started a slow decline in line with demographic projections. The number of children under five (1,087,000) has never been as high as it is now and never will be again. By 2050 it will have fallen by 20%, that is, by one in five compared with the current population.

As for all countries in the region, demand for child care is shifting towards demand for care for the elderly. In 1950 only seven thousand nationals of the Dominican Republic were older than 80 years of age, but today that number is 20 times higher and from 2010 to 2050 will grow four and a half times.

These changes pose a challenge to the structure of the family, the marketplace, the government, and the not-for-profit economic sector, which have to find a new balance in assigning the rights and obligations attached to providing care for those who cannot procure it for themselves.

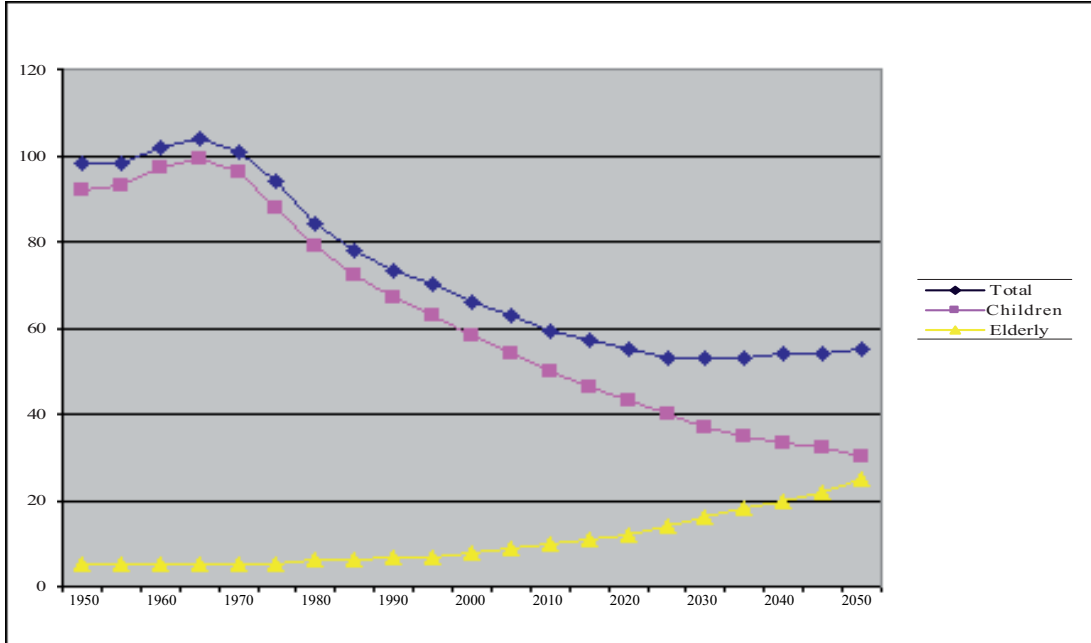
TABLE 12: Care demand by age group in the Dominican Republic, 1950, 2010 and 2050

	Population (in millions)			Population (in percent)			Care units * (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	2,427	10,225	13,441	100.0	100.0	100.0	4.1	10.2	19.7	100.0	100.0	100.0	3.3	2.4	2.3
Population aged 0-4	458	1,087	844	18.9	10.6	5.5	1.4	1.1	2.5	33.6	21.4	12.9	1.1	0.5	0.3
Population aged 5-14	674	2,092	1,779	13.2	20.5	11.4	1.3	2.1	3.6	33.0	27.4	18.1	1.1	0.7	0.4
Population aged 15-64	1,229	6,420	8,660	64.4	62.8	63.0	1.2	6.4	8.7	30.0	42.1	44.0	1.0	1.0	1.0
Population aged 65-80	59	492	1,543	11.5	4.8	20.1	0.1	0.5	3.1	2.9	6.5	15.7	0.1	0.2	0.4
Population aged 80+	7	134	615	4.6	1.3	6.1	0.0	0.1	1.8	0.5	2.6	9.4	0.0	0.1	0.2
Care unit to total population ratio	1.68	1.49	1.46												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

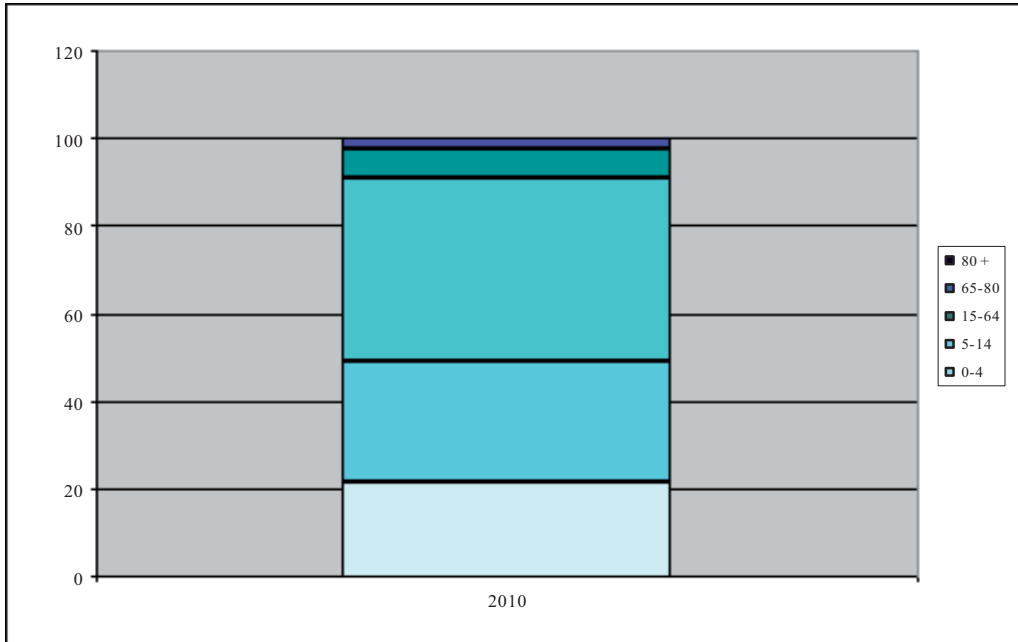
FIGURE 14.1: Dependent population by age in the Dominican Republic, 1950-2050*



* Cohort population as a percentage of the population aged 15-64.

Source: Compiled by M.A. Durán using data from World Population Prospects.

FIGURE 14.2: Care demand breakdown in the Dominican Republic in 2010



Source: Compiled by M.A. Durán using data from World Population Prospects.

4.2.10. Care demand in Uruguay

The demographic transition took place earlier in Uruguay than in other Latin American countries, hence there were no dramatic changes in population from 1950 to 2010. The care load on each adult who is a potential member of the labor force held very steady at intermediate levels from the beginning of the period considered to the present, and projections do not forecast large changes in the coming decades: the population will only be 5% larger in 2050 than in 2010 and will have grown by only 5.6% over the entire hundred-year period.

Despite the absence of global changes in the care load, the composition did change between 1950 and 2010. Demand for elderly care grew from 12.1% to 21.3%, while demand for child care diminished from 44.5% to 35.5%. Care demand for the population in the middle age group has hardly changed. In the coming years care demand will continue to shift to the population of over-65s, which in 2050 will account for 33.1% of total demand, amply outstripping demand for child care, and 41% of the demand for elderly care will be generated by people in their 80s and 90s.

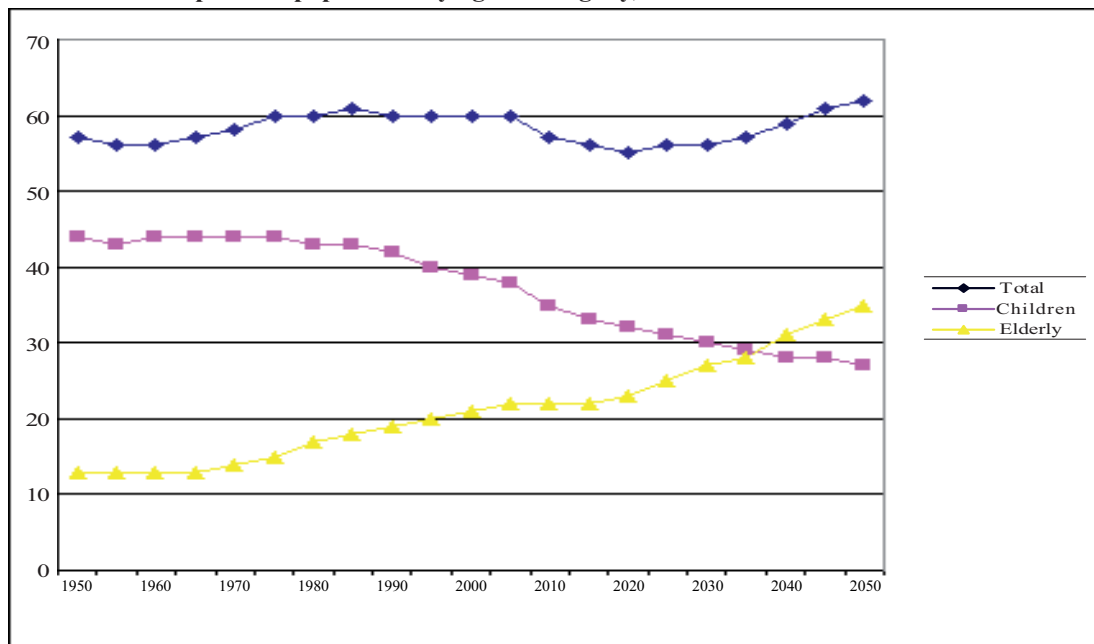
TABLE 13: Care demand by age group in Uruguay, 1950, 2010 and 2050

	Population (in millions)			Population (in percent)			Care units * (in millions)			Care units (in percent)			Care unit to population aged 15-64 ratio		
	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050	1950	2010	2050
Total population	2,239	3,372	3,637	100.0	100.0	100.0	3.3	5.0	5.5	100.0	100.0	100.0	2.3	2.3	2.4
Population aged 0-4	220	247	199	9.8	7.3	5.5	0.7	0.7	0.6	20.0	14.9	10.9	0.5	0.3	0.3
Population aged 5-14	404	512	412	18.1	15.2	11.3	0.8	1.0	0.8	24.5	20.6	15.0	0.6	0.5	0.4
Population aged 15-64	1,430	2,145	2,245	63.9	63.6	61.7	1.4	2.1	2.2	43.4	43.2	41.0	1.0	1.0	1.0
Population aged 65-80	152	343	533	8.2	13.9	21.5	0.3	0.7	1.1	9.2	13.8	19.5	0.2	0.3	0.5
Population aged 80+	32	125	248	1.4	3.7	6.8	0.1	0.4	0.7	2.9	7.5	13.6	0.1	0.2	0.3
Care unit to total population ratio	1.5	1.5	1.5												

Source: Compiled by M.A. Durán using data from World Population Prospects: The 2008 Revision Population Database. United Nations Population Division (<http://esa.un.org/wpp>), 2010.

* Weighted by Madrid II scale: population 0-4 years = 3 care units; 5-14 = 2 care units; 15-64 = 1 care unit; 65-80 = 2 care units, and 80+ = 3 care units.

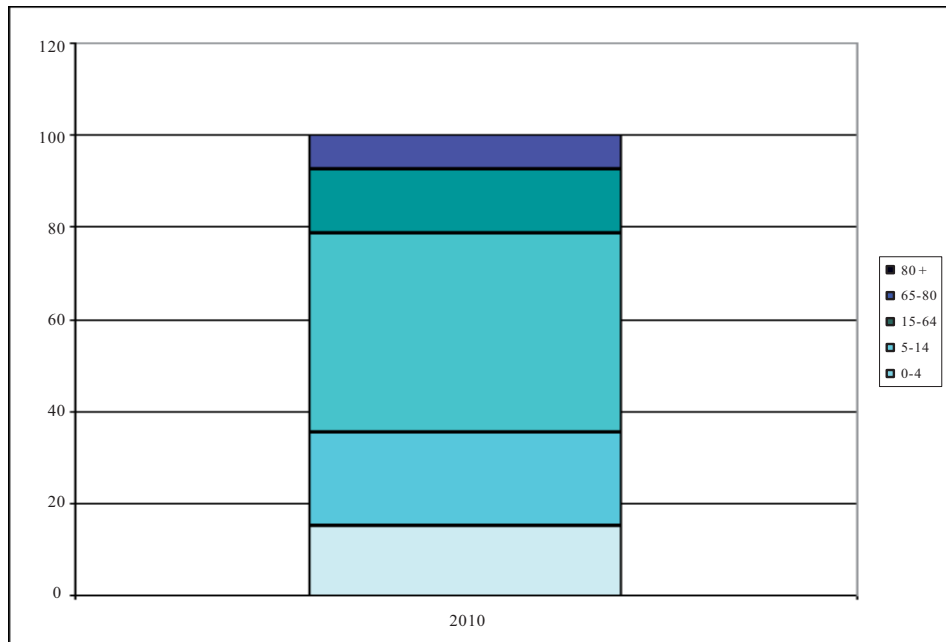
FIGURE 15.1: Dependent population by age in Uruguay, 1950-2050*



* Cohort population as a percentage of the population aged 15-64.

Source: Compiled by M.A. Durán using data from World Population Prospects.

FIGURE 15.2: Care demand breakdown in Uruguay in 2010



Source: Compiled by M.A. Durán using data from World Population Prospects.

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