Inequalities in Child Health in Bolivia: Has Morales Made a Difference

The election of Evo Morales in Bolivia signaled a fundamental shift in the political representation of indigenous people in Latin America. One of the most serious challenges facing Bolivia is poor child health and large inequalities in child health. Many of the people who supported Morales are those whose children experience the greatest health inequities. In Bolivia, six percent of children under age five are underweight, compared to four percent in all of South America (Population Reference Bureau, 2007). In addition, the infant mortality rate in Bolivia is 50 deaths per 1,000 live births – more than double the average for South America as a whole (Population Reference Bureau, 2009). These rates, however, are not uniform throughout Bolivia. Child nutritional status and infant mortality vary by urban/rural residence, region, and socioeconomic status. As president of Bolivia, Evo Morales has followed a socialist plan to improve the health of women and children. The Morales government announced important initiatives to improve public health. The purpose of this paper is to assess changes in children’s health following the election of Morales.

Background

To understand the health of Bolivia’s population requires one grasp the contours of the continuities, as well as the radical political changes the country has undergone over the last decades in the context of international covenants and increasingly important international agencies. When the period of import substitution political economies and dictatorship ended in the early eighties, Bolivia had a stratified, strongly unequal society divided among a privileged urban, Spanish speaking segment, a much less privileged and rapidly growing sector of rural migrants from the Aymara and Quechua speaking countryside, and a underprivileged rural--
primarily indigenous--majority.¹ By the end of the first decade of the new millennium, with the new plurinational government, the problems of social exclusion manifested in the geographic, class, and ethnic stratification continued, although the relative percentages had shifted. The majority of the population had recently become urban.

As the democracy developed in Bolivia in the eighties, Bolivia’s health care system was small and almost entirely focused on the cities.² Nevertheless, the last military governments began a process of attempting to bring formal health care to rural areas through the construction of postas sanitarias, (health stations) in every community although in the vast majority of the cases the buildings though built never were staffed other than minimally.³ But this effort was significant, in that it marked the beginnings of governmental concern with low life expectancies and very high maternal and infant mortality rates among Bolivia’s rural population.

Under the various democratic governments, Bolivia’s concern with improving health grew along with the country’s involvement in multilateral agencies and agreements. The results of the international Alma Atta conference of 1978 found a place within Bolivia’s health policy establishment as the democratic governments, in conjunction with international organizations, began questioning and seeking to redress the inequalities that led to poverty and Bolivia’s two tiered health system.⁴ Along with increased funding by the World bank and other international organizations, as well as with the rapid development of Non-Governmental Organizations which carried out health care projects, not only did Bolivia’s health bureaucracy grow strongly, one saw

¹ Herbert S. Klein, Bolivia: The Evolution of a Multiethnic Society. Oxford University Press, 1992
an increase in private health care provision. Though weak and highly unequal, the market for health care was growing with increased migration to cities motivated not only by demographic growth, but by the economic models of neoliberalism that dominated society. Between 1998 and 2002 public and private expenditures increased by 22% reaching some 7% of GDP.  

Neoliberalism, which dominated in Bolivia following the election of Victor Paz Estenssoro and the Movimiento Nacional Revolucionario in 1985, was not simply a free market policy, but a vision of the state. It emphasized technocratic wisdom reflected in the development of “rational” policies reflecting international wisdom and governmental needs which were presented to stakeholders for comment, even if resisted by popular mobilizations. It was, in Bolivia, an economic ideology connected with an institutional framework that became strongly resisted and was rejected by the government of Evo Morales, elected in 2005, at the same time it maintained most international agreements that were important in the formation and implementation of policy.

Even though, health policy in Bolivia is impacted by international arrangements which include neighboring countries, such as Peru and even nearby ones such as Colombia, at the same time Bolivia has taken a very different political path. While Perú and Colombia have signed free trade agreements with the United States and are driven by neoliberal politics, Bolivia has rejected neoliberalism, since it was one of the first Latin American countries to undertake neoliberal reform as it came out of dictatorship in the eighties, and is attempting to create a different kind of political system with implications for health policy and for health.

Evo Morales’ election to the presidency brought an end to officially sanctioned neoliberalism as well as to the stalemates of “pacted government.”  

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6 Roberto Laserna, La Democracia en el Ch’enko. La Paz, Bolivia: Fundación Milenio, 2004.
the end of dictatorship in the early eighties until Evo Morales and his Movement towards Socialism, ever obtained an absolute majority of the presidential vote. As a result, the presidency was determined by back-room negotiation among entrenched party figures and elites. This led to a consolidated system of rule, despite divergent interests and competition, focused on elite-driven, technocratic representative democracy and an explosion of social movements, resistance, and militancy. While representation and consultation with stake-holders at the grass roots was important, such as figured in the law on popular participation, government policy was strongly driven by international organizations with which Bolivia had agreements.

During the period prior to the Morales government, Bolivia’s health system not only grew but also underwent a number of reforms that led to expansion of health care for rural people. These included a focus on high mortality rights and led to the writing of health care as a right into the country’s constitution. They also included campaigns to promote oral rehydration therapy, vaccinations of children, and attempts to improve infant nutrition and maternal care. Nevertheless, by 2004, just prior to the election of Morales, despite evident success in reducing infant mortality rates, in the new policy document of the now named Ministry of Health and Sport, the minister, Dr. Fernando Antezana Aranibar, wrote: “es evidente que nuestro actual sistema de salud resulta poco eficaz para atender la salud del total de la población, por ello es indispensable introducir cambios que respondan a la exigencia de equidad y justicia social. Cambios que, necesariamente, reclaman el concurso decidido de instituciones públicas y privadas, así como de la ciudadanía en su conjunto.”

This 2004 national policy continued to emphasize the “mother child dyad,” mentioned in prior policies, despite criticisms of its focus on women rather than on men, families, and

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Reform focused on problems of payment for health care that despite the growth in the private sector continued to be heavily public or charity based, by stressing the expansion of public insurance such as the Seguro Básico de Salud, the Seguro Básico Indígena, and the Seguro Universal Materno Infantil. It also demanded decentralization and more effective management and by the state through government regulation of the quality of basic medical attention which was argued would improve equality of health outcomes.

Nevertheless, the problem of inequality and the differences in culture between a government and private sector emphasizing skills in Spanish while large numbers of, particular, rural Bolivians continued to speak an indigenous language as their dominant tongue. The 2004 policy set as basic principles of its policy “equidad de género y generacional” (“porque bolivianas y bolivianos de todas las edades, tienen derecho a una atención de calidad)” and “humanismo” which required that “en todos los servicios de salud la atención brindada sea respetuosa de los usos y costumbres - no nocivos - de la población boliviana.” Nevertheless, the policy argues there is no model for “intercultural” health care service in a country where the majority is indigenous, since the health care system is delivered almost entirely in Spanish and represents the norms of formal, international health care. It recognizes this leads to very high levels of exclusion in the provision of health care.

The policy notes, following the Ottawa Letter, that there are nine determinants of health: income and social status, social support network, education, working conditions, physical environment, biology and genetics, healthy practices, development of infant health, and health services. It then wryly observes: “De estas determinantes solo cuatro pueden ser intervenidas

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8 Política... 2004, op cit. p 4. Maldonado Canedo, op cit, p. 84.  
10 ibid, p 22.
directamente por el Sector Salud". 11 In this manner it recognizes the limits of the ways in which health is defined traditionally and in the the brief of the Ministry of Health and Sport at the time. Instead the policy argues for a role coordinating intersectorial efforts to meet the notions of health that move beyond the simple biophysical notions that motivated the organization of the ministry.

The policy goes on to note the difficulty of effectively guaranteeing the law be carried out in the health sector. As a result, it argues, is a lack of trust in the system of health care by the general Bolivian population. 12 However, its analysis of the reasons for this incapacity and distrust hinge on the failure of the governmental model of administration and decentralized management down to the municipal level and the lack of an effective legal and social structure permitting the effective coordination of public and private efforts.

The policy notes that the cost of health care is prohibitive for most Bolivians, and laments the lack of governmental mechanisms to effectively manage that situation, despite the importance of governmental investment in health. It states that 28% health care expenditures are from individuals. In the case of the poorest fifth of the population these expenditures come to 5.8% of total household budget while for the next poorest quintile they are 9.3 % of the household budget. In contrast for the wealthiest quintile they are 5.2% of household income. 13 The policy notes that this pattern demonstrates the ways in which poverty disastrously contains demand and access to health care while also noting the disastrous consequences of health care needs for already stretched family resources. As a result, the policy emphasized the expansion of governmental based health insurance.

**Health Policy Under Morales**

12 ibid p 19.
13 ibid. p 21.
The social circumstances behind the difficulties in the governmental model of neoliberalism espoused by the MNR government in the 2004 policy, led to the historically significant election of Evo Morales and a change of governmental model, described as deeply participatory in which, nevertheless, the state is the guarantor of the general welfare of the population and guarantees the “effective exercise of the right to health.” \(^\text{14}\) This new direction emphasizes the notion of health determinants contained in the former policy. But whereas the prior document lamented the inability of the Ministry of Health and Sport to grapple with the determinants since most were beyond its brief, the new policy lays the concern front and center in its organization. The new policy states that its focus is not simply on access to health care services but on the environment which enables health. This involves a strong contrast with the structural limits of the former policy.

The 2006 policy defines those limits as an emphasis on “atención medico-curativa”. It notes it differs “en dos aspectos: 1) aborda un amplio rango de determinantes y no sólo en los riesgos y condicionantes de la enfermedad y la clínica; 2) llegan a toda la población y no solo a los enfermos. Este enfoque contribuye además, en tres áreas principales: mayor calidad de vida bienestar, menores gastos en salud y estabilidad social general.” \(^\text{15}\) The policy emphasizes the role of the state in guaranteeing the right to health at the same time it argues for a coordination of actions at municipal and departmental levels in improving the conditions of life.

The new policy also labels the former policy as one of “colonialism” in which foreign derived models of attention were given priority. \(^\text{16}\) This includes a traditional focus on “asistencialismo” with an “enfoque biologicista”. \(^\text{17}\) In contrast, it argues for a much broader

\(^{15}\) ibid. p 4.  
\(^{16}\) ibid. p 12.  
\(^{17}\) ibid. p 14.
vision of health drawing on the bases of international documents and one that recognizes the value of indigenous traditions in understanding the breadth of the social determinants of health and in the delivery of health care. It states: “el sistema único de salud con acceso universal, es respetuoso de las culturas originarias y enriquecido con la medicina tradicional; es inclusivo, equitativo, solidario, de calidad y descentralizado; conducido y liderado por el Ministerio de Salud y Deportes; actúa sobre los determinantes de salud; con participación de una población con hábitos saludables, comprometida con la actividad física y deportiva, organizada y movilizada por el ejercicio pleno de su derecho a la salud, que vive bien.”

It proposes, as a result, the coordinated mobilization of people at the community level to seek to “live well” and, on the basis of the expanded model of health in the notion of determinants, to build a relationship of respect with indigenous culture and healing. While in the former policy this was envisioned as a factor of exclusion and a barrier, here it becomes a grounding bases for policy, for management, and for social mobilization. The internationally derived notion of determinants is critical in this reworking of health policy on the basis of a more “holistic vision”. Although the implementation of the policy is too recent to show up in the data considered here, it marks an important shift in health care policy that responds to the issues contained in the data analyzed by this paper.

The election of Evo Morales as the president in 2005 resulted in increased cooperation between Venezuela, Bolivia, and Cuba. The Bolivian Alternative for the Americas (ALBA), or what Morales calls the “Peoples’ Trade Agreement” (TCP) was signed in April of 2006. This regional integration accord sent almost 2,000 Cuban medical personnel to Bolivia, in addition to aid from Cuba and Venezuela. This influx of medical support helped open or expand some 20 hospitals and 11 eye clinics in Bolivia (Tockman, 2009). At the national level in 2007, Bolivia’s

18 ibid. p 15.
TCP-ALBA Coordination Team documented that Cuban medical personnel provided services to around three million Bolivians (Tockman, 2009). BBC reports the next year indicated that the number of consultations rose to nine million (O’Shaughnessy, 2008).

In addition to increasing the number of hospitals and clinics, Morales initiated a subsidy to reduce maternal-child mortality. This program provides cash payments to pregnant women and mothers with babies through the child’s second year if they attend pre- and post-natal checkups. The total cash transfers provide about 258 dollars during the woman’s pregnancy and the first two years following the baby’s birth. The minimum monthly wage in Bolivia is 90 dollars (Chávez, 2010). Although the payments are small, they provide an incentive for poor women to follow regular prenatal and post-natal visits, give birth in a hospital, and bring in their babies for regular checkups (Chávez, 2010). The Morales government has also initiated other nutritional and vaccination campaigns to help combat malnutrition and disease (Tockman, 2009).

Under Morales, the Bolivian Constitution approved in January of 2009 promises, “universal, free, equitable, intracultural” access to healthcare for all Bolivians. It also promotes the use of indigenous medicines and “ancestral knowledge and practices” in addition to the biomedical model of treatment (Tockman, 2009). The government has sought to increase access to healthcare by creating and expanding the number of hospitals and clinics, as well as providing monetary incentives for women to attend the clinics during pregnancy, delivery, and following birth. The expectation is that these programs will reduce maternal and child mortality in a nation that is one of the poorest in South America.

Increased morbidity among children living in poverty is strongly linked to malnutrition and an inadequate diet (Jelliffe & Jelliffe, 1989). Chronic protein-energy malnutrition leads to stunted growth and increased morbidity and mortality among children in the developing world,
and childhood malnutrition also decreases the survival chance of adults later in life (Mosley & Gray, 1993). Thus, reductions in morbidity and improvements in nutritional status are major policy issues for health planners in less developed countries (Pebley, 1993).

Infant and child deaths in Bolivia and other Latin American countries are largely the result of gastro-intestinal infections (Rance, Wolowyna & Aguirre, 1989; Sommerfelt et al., 1989). Diarrhea and other gastro-intestinal infections are carried via water, food, and feces and as such are affected less by Western medical innovations than by improvements in the standard of living (Palloni, 1981; Gwatkin, 1980; Anaya, 1984). Poverty not only increases a child’s exposure to infections but also, due to poor nutrition, reduces a child’s defense against disease and leaves him or her vulnerable to infection and death (Rance et al., 1989). Undernourished children are more susceptible to intestinal infections such as diarrhea. Diarrhea, in turn causes the child to lose more nutrients which then worsens the level of malnutrition and further impedes the child’s physical and intellectual development (Rance et al., 1989; Jelliffe & Jelliffe, 1989; Williams, Baumslag & Jelliffe, 1994). Children living in impoverished environments, therefore, are caught in a cycle of malnutrition, diarrhea, and retarded physical growth.

Particularly in impoverished environments, breast-feeding benefits infant and child health because it has immunological properties that protect against gastro-intestinal and respiratory disease, it meets an infant’s nutritional requirements for the first 4 to 6 months of life, and it is sterile (Forste, 1994; Forste 1998; Newman, 1995). In addition, oral rehydration therapy is important to reduce infant and child death (Frankenberg, Suriastini & Thomas, 2005).

Access to prenatal healthcare and delivery under the supervision of medical personnel, as well as immunization campaigns reduce the likelihood of infant and maternal mortality in impoverished countries (Frankenberg, Suriastini & Thomas, 2005). Although there is some
debate about the role of prenatal care, there is evidence that prenatal care plays an important role in low rates of maternal mortality, as well as providing other maternal and infant health benefits (Alexander & Kotelchuck, 2001).

Access to prenatal care, as well as having a trained attendant at delivery, is associated with socio-economic status and maternal education. Availability of such services is critical because women and neonates are more likely to die from complications if medical facilities and skilled birth attendants are not available (Falkingham, 2003). Even access to a midwife in a community has been shown to improve the nutritional status of children relative to communities without such support (Frankenberg, Suriastini & Thomas, 2005). Thus, public-health interventions that increase access to curative and preventive healthcare, as well as access to information about nutrition and feeding practices are essential to improve the nutritional status of children.

The use of healthcare services depends upon not only the physical availability of such services, but also the ability of women to utilize these services. Studies in rural areas of Central America indicate that access to healthcare includes not only the proximity of hospitals and clinics, but also good roads and transportation to these services (Gage & Calixte, 2006). In addition to access, the quality of services is critical in promoting improved child and maternal health. Research comparing differences in facility quality provided to low income communities underscores the importance of healthcare quality in improving health outcomes (Hale, DaVanzo, Razzaque, & Rahman, 2006). Improved quality often includes increased access, such as healthcare workers that visit door-to-door. Quality services generally include neonatal care, medical treatment, immunizations (including tetanus), and contraceptives (Hale, DaVanzo, Razzaque, & Rahman, 2006).
However, even if healthcare is physically more accessible, cultural patterns can limit the ability of women to utilize such services. If women have the ability to make decisions in the household, they are more likely to utilize healthcare services (Beegle, Frankenberg & Thomas, 2001). Female autonomy or decision making is generally associated with higher education and socio-economic status among women. Thus, factors associated with inequality, such as marital status, household structure, socioeconomic status, mother’s education, housing characteristics, rural/urban residence, and ethnicity have been found to influence infant and child health in the developing world (United Nations, 1985; Heaton & Forste, 2003). In Bolivia, the Altiplano and Valles regions have the greatest poverty, and diarrhea rates in these areas are especially affected by access to waste elimination services and potable water (Rance et al., 1989), in addition to healthcare services. To the degree that Bolivia has been able to improve food security and extend basic healthcare under the Morales government, we would expect indicators of child health to improve, even if inequalities remain.

**Trends in Child Health and Health Inequalities**

The first issue we consider is the trend in key indicators of children’s health. For comparison, the same indicators are plotted to two neighboring countries. Figures 1 and 2 show trends in the percentage of births that were attended by a trained health professional and the percentage of children who are stunted, comparing Bolivia, Peru and Colombia. The indicators are taken from the DHS webpage and, for Bolivia, from the 2003 and 2008 data files. Colombian children fare better on both indicators of health. The disadvantaged position of Bolivia is evident in nutritional status. Bolivian children are consistently more likely to be stunted. Bolivian children were also less likely to have a trained health professional present at their birth prior to 1990, but Bolivia has made substantial progress since the 1990s. All three countries are making
progress in improving nutritional status and provision of health care. It is difficult to come to
definitive conclusions regarding the relative rate of improvement in the three countries because
surveys are not taken at the same time in each country, and Bolivia has more recent results. Yet it
appears that progress has slowed somewhat in Colombia and Peru, but has increased in Bolivia.
In any case, indicators show that Bolivia has made significant progress between 2003 and 2008.

The key issue we address is whether health inequalities have been reduced in Bolivia. To
address this question, we examine socioeconomic, ethnic and geographic inequalities, comparing
2003 and 2008 surveys. Figures 3-6 graph the inequalities in each of the four health outcomes
(perceived access, presence of a doctor for prenatal care and delivery, nutritional status measured
by height for age and mortality in the first three years of life) for each of the four dimensions of
inequality (maternal education, household wealth, geography and ethnicity). Several
generalizations apply to these graphs. First, there is profound inequality in all four health
outcomes across all four measures of status. Children in poor households with less educated
parents, indigenous ethnicity, and disadvantaged geography have less access to healthcare (as
perceived by their mothers), are less likely to be attended by a doctor before or at birth, are more
likely to be malnourished, and more likely to die before their third birthday. Second, the degree of
inequality is comparable for education, wealth and geography, but somewhat lower for ethnicity.
Third, there are significant improvements in access to a doctor, nutritional status and child
mortality between 2003 and 2008, but perceived access to care has not changed much. Finally, it
does not appear that the degree of inequality has changed much between 2003 and 2008.

The graphs provide a visual image of trends in health inequalities. We utilize multivariate
analysis to: 1) consider each dimension of inequality simultaneously since they may overlap, 2)
control for confounding factors, and 3) provide tests of statistical significance for each aspect of
inequality, the overall trend in health, and the interaction between the trend and each aspect of inequality. If inequalities are growing smaller then interactions terms will have effects opposite the main effects and will be statistically significant. Since ethnicity is measured in different ways in the two surveys, models for ethnicity are reported separately.

Models showing inequality in each of the four outcomes related to maternal education, household wealth and geography are reported in Table 1. There are two models for nutritional status and mortality because perceived access and doctor presence are added to the second model. Both of the socioeconomic measures maternal education and wealth have independent influences on each of the health outcomes. This suggests that economic inequality is important, but that maternal education may provide additional advantages to children. Wealth appears to be particularly important for perceived access, presence of a doctor and nutritional status, but the effects of education and wealth are more similar in the mortality models. Rural residence is a disadvantage, but this disadvantage is uneven across outcomes. Rural residence is more of a challenge for access to a doctor and nutritional status than for perceived access or mortality. Living in the high plains is problematic for each of the health outcomes, even after education and wealth are taken into account. In short, each of the dimensions of inequality are important even after they are considered simultaneously and control variables are taken into account. The only exception is that rural residence is not as important for some outcomes.

The coefficients for survey year indicate improvements in access to a doctor, nutritional status and mortality, even after socioeconomic status, geography and control variables are taken into account. Thus, the appears to be broad-based improvement in these aspects of health. In contrast, perceived access to health care declined once all other variables were taken into account.
Interaction terms suggest very little progress in reducing inequalities. Most of the coefficients for interactions are small and statistically insignificant. Interactions also suggest that inequalities in perceived access due to rural residence and maternal education may have increased over the period under study. In contrast, wealth and regional inequalities in perceived access may have moderated over the period. The education interaction in the equation for presence of a doctor also suggest a slight decline in educational inequality between 2003 and 2008.

Table 2 shows the relationship between ethnicity and health outcomes. Precise comparisons cannot be made between the two time periods because of the difference in how ethnicity is measured. It 2003 ethnicity refers to the individual respondent while in 2008 it refers to the makeup of the village. Generally, the Quechua and Aymara have a health disadvantage, even when socioeconomic variables, geography and controls are taken into account. Other indigenous groups do not experience as large of a disadvantage. There is not clear evidence that these ethnic inequalities are diminishing over time.

**Conclusion**

Our conclusions are very preliminary because the changes in health policy and practice in Bolivia have been recent. The pre-existing inequalities in child health, the difficulty in changing long established practices, the intransigence of bureaucracy, and the time required for practice to result in improved health all work against dramatic short term change. Results here should be seen as a first step in assessing the impact of policy change on child health. These early results provide some optimism about the prospects for long term improvements in child health, but show little evidence that inequalities in health are declining.
Table 1. Multivariate analysis of inequalities in Child Health.

<table>
<thead>
<tr>
<th>Access to health care</th>
<th>Doctor</th>
<th>Height for age</th>
<th>Mortality rate</th>
</tr>
</thead>
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<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Education</td>
<td>.120*</td>
<td>.074*</td>
<td>.072*</td>
</tr>
<tr>
<td>Wealth</td>
<td>.601*</td>
<td>.236*</td>
<td>.334*</td>
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<tr>
<td>Rural</td>
<td>-.052</td>
<td>-.207*</td>
<td>.129*</td>
</tr>
<tr>
<td>Region</td>
<td>-.635*</td>
<td>-.266*</td>
<td>-.527*</td>
</tr>
<tr>
<td>Year</td>
<td>-.328*</td>
<td>.105*</td>
<td>.171*</td>
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Interactions between year of survey and:

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<th>Access to health care</th>
<th>Doctor</th>
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<th>Mortality rate</th>
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<tr>
<td></td>
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<tr>
<td>Education</td>
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<tr>
<td>Region</td>
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<td>.036</td>
<td>-.051</td>
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R²                     | .170   | .361          | .219           | .200           | --             | --             |

X²                     | --     | --            | --             | --             | 193.3          | 99.3           |
Table 2. Multivariate analysis of inequalities in Child Health including Ethnicity.

<table>
<thead>
<tr>
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<tr>
<td>Quechua</td>
<td>-.149*</td>
<td>-.186*</td>
<td>-.035</td>
<td>-.056*</td>
<td>-.102*</td>
<td>-.107*</td>
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<td>1.278</td>
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<td>-.620*</td>
<td>-.290*</td>
<td>-.223*</td>
<td>.003</td>
<td>-.152*</td>
<td>1.254</td>
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<tr>
<td>Other</td>
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<td>.240*</td>
<td>-.056</td>
<td>-.040</td>
<td>.089</td>
<td>-.007</td>
<td>1.465</td>
<td>1.420</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.187</td>
<td>.170</td>
<td>.378</td>
<td>.359</td>
<td>.198</td>
<td>.247</td>
<td>--</td>
<td>--</td>
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<tr>
<td>$X^2$</td>
<td>--</td>
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<td>114.1</td>
<td>122.3</td>
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Figure 1. Trends in the Percent of Children Who Are Stunted.
Figure 2. Trends in the Percent of Births Attended by a Trained Professional.
Inequalities in Health Access

**Education**

- **Survey year**
  - 2003
  - 2008

**Wealth**

**Geography**

**Ethnicity**
Inequalities in Nutritional Status

Education

Wealth

Geography (height for age)

Ethnicity
Inequalities in Mortality

Education

- Mean Mortality vs. Education Levels:
  - No education
  - Incomplete primary
  - Complete primary
  - Incomplete secondary
  - Complete secondary
  - Higher

Wealth

- Mean Mortality vs. Wealth Levels:
  - Poorest
  - Poorer
  - Middle
  - Richer
  - Richest

Year

- Line graph for 2003 and 2008

Geography

- Mean Mortality vs. Geographic Areas:
  - Urban lowland
  - Urban highland
  - Rural lowland
  - Rural highland

Ethnicity

- Mean Mortality vs. Ethnic Groups:
  - Quichua
  - Aymara
  - Other
  - None