Inequality and the Politics of Social Policy Implementation: Gender, Age and Chile’s 2004 Health Reforms

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Summary. — Regarding scholarship on the political determinants of inequality, little attention has been paid to policy implementation. We examine the 2004 Chilean health reforms that sought to regulate private insurers, and measure their effects on gender and age inequality. We find that reforms intended to decrease these inequalities largely failed. Analysis of this failure demonstrates the importance of the politics of implementation. When reforms threaten profits, private providers may act to undermine reforms in the implementation process. Given the widespread emergence of private providers in social policy systems, understanding their stakes in implementation is key to more effective, equality-enhancing reforms.

Key words — Latin America, Chile, health reform, political determinants of inequality, implementation, social policy

1. INTRODUCTION

In recent years, countries as diverse as Uruguay and the United States, New Zealand and Bolivia, have turned to more expansive social policies as one mechanism to reduce inequality. This has been particularly true in health sectors, where governments have used a combination of greater state regulation of private health providers and increased state funding of public health systems in an effort to reduce inequalities in access to quality health care. Left of center governments, generally, have led these redistributive reform efforts. Chile has been the bellwether of such changes; in 2004, Chile’s government, led by Socialist President Ricardo Lagos, passed a landmark health reform that promised to reduce inequality. As part of broader regional and global trends, the 2004 Chilean health reforms provide an opportunity to assess the politics of expansionary social policy reforms and their efficacy in reducing inequality. Moreover, as the first among a cohort of countries to pass a major expansionary health reform, Chile allows for assessment of reforms after several years of implementation.

Chile also presents an interesting puzzle relevant to the broader scholarship on the political determinants of inequality. This scholarship has focused on three elements significant to inequality outcomes: regime type, political parties, and the political process of legislative negotiation. In a nutshell, this literature has found that democratic regimes led by left of center governments, in which the political power of labor interests is strong but private business interests are weak, will lead to more distributive policies. With many of these variables in place, in 2004 Chile enacted a relatively progressive health reform intended to decrease inequalities in access to health care. Yet, as we demonstrate in this article, important elements of Chile’s reforms failed to achieve their objectives in reducing inequality. Why? While we agree that regime type, left of center government, and the legislative process are important political determinants of inequality, we show that the political factors that determine inequality do not end with an election, or even with the passage of a particular policy. The policy implementation stage is another crucial point at which inequality may be either ameliorated or heightened, sometimes in unanticipated ways.

The contributions of this article are empirical and theoretical. Empirically, we compare the economic access of men and women, and the young and the old to private sector health care before and after reform, and find that the reforms that were intended to decrease discrimination by private insurers against women and the aged largely failed to reduce existing inequalities in access. Our empirical findings lead us to a second, theoretical contribution to the literature on the political determinants of inequality. We argue that the contest over redistribution, while it may begin at the ballot box and become more intense in legislative debates, is not over until the politics of implementation play out. Specifically, when for-profit private providers are involved, these actors have incentives to undermine the equality-inducing aspects of reforms in the implementation process when these compete with their interests. Thus, the recent and widespread emergence of for-profit private providers in social policy systems presents a new challenge to redistribution during the politics of implementation.

We begin with a brief review of the scholarship on the political determinants of inequality. We then summarize the politics of health reform in Chile under the Lagos administration. In Section 3, we evaluate the effectiveness of the specific reforms directed at Chilean private health providers that sought to reduce gender and age inequality. We measure changes in gender and age inequality—measured by stratification between the public and private systems and differences in economic access to private health care—before and after the reforms utilizing a rarely exploited database of private health care utilization from the Chilean Superintendent of Health. Contrary to our expectations, we find that the reforms failed to reduce inequality. In Section 4 we analyze how the politics of implementation contributed to the lack of efficacy of these reforms.

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2. POLITICAL DETERMINANTS OF INEQUALITY

The literature on what causes inequality is broad and varied; scholars have focused on economic, demographic, geographic, and political determinants. We focus on the political determinants of inequality; those that stem from political choices and political processes. The political determinants of inequality are important precisely because this is a domain from which lessons can be drawn for reducing inequality, given that people ultimately determine politics. The literature on the political determinants of inequality can be roughly divided into three groups: studies that focus on regime type; those that focus on parties and elections; and those that focus on the legislative process. The majority of scholarship focuses on income inequality, although gender and race based inequalities are broadly accepted as equally important (Hoffman & Centeno, 2003). We also consider age inequality to be important.

Scholarship on regime type and inequality has had mixed conclusions, though more evidence points to an inverse relationship between democracy and inequality. The inverse relationship is based on the premise that because democracies allow the poor, working, and middle classes to have a voice in politics, and because these groups have an interest in redistribution, politicians will respond and democracies will be more redistributive than authoritarian regimes (Lenski, 1966; Lipset, 1959). Others argue that authoritarian regimes redistribute more, because these governments cannot be manipulated by affluent interests in the ways that democracies may be and because the poor do not always organize to obtain their redistributive interests (Bietz, 1982; Bollen & Jackman, 1985).

Early empirical studies of the relationship between democracy and inequality had quite mixed findings. Contemporary studies, with improved data and empirical methods, have more consistently favored the thesis that democracy will reduce inequality (e.g., Burkhart, 1997; Reuveny & Li, 2003; Rudra, 2004, except see Timmons, 2010), especially long-term democracy (Huber, Nielsen, Pribble, & Stephens, 2006; López Calva & Lustig, 2010).

In democracies, political parties have been shown to play important roles in producing greater or lesser inequality. Studies of advanced industrial countries employing the power resource approach have shown that a combination of left party power, dense unionization, and centralized political power can successfully reduce income inequality, poverty, and wage dispersion. Conversely, right-wing parties in advanced industrialized countries have been shown to exacerbate inequalities (Bartels, 2008; Brady & Leicht, 2008). Due to data limitations, studies of the political determinants of inequality in middle and low-income countries have been few, with most focusing only on regime type. Latin America has more studies, though the findings for the region with regard to parties are sometimes, foreign donors in the policy process (Brinkerhoff, 1996; Crosby, 1996; Thomas & Grindle, 1990). Most previous studies of the politics of implementation focused their analysis to the role of publics, bureaucrats, and sometimes, foreign donors in the policy process (Brinkerhoff, 1996; Crosby, 1996; Thomas & Grindle, 1990). Almost no attention has been paid to the roles of private providers that face regulatory reforms, in part because much of the scholarship on implementation was focused on the market-oriented reforms that sought to create space for private providers in the first place. In the post-retrenchment period in Latin America, however, the increased role of private providers as stakeholders has changed the political terrain (Ewig & Kay, 2011; Murillo, 2009), with consequences for the politics of implementation, and ultimately inequality outcomes.
Our analysis of the implementation of Chile’s health reforms demonstrates that policy implementation is a crucial political domain with significant consequences for inequality. A focus on implementation—specifically the competing political stakes of the government and private health providers—helps explain why a policy passed by a left of center democratic government has not had the expected redistributive effects.

3. HEALTH REFORM UNDER PRESIDENT LAGOS

In 2000, Ricardo Lagos of the Socialist Party was elected President of Chile. At the top of his political agenda was an expansionary health reform that would address Chile’s changing epidemiological profile, fiscal concerns, and the inequalities of a health system put in place by the previous authoritarian government. Nearly 20 years before, in 1979, the dictatorship of General Augusto Pinochet combined the existing stratiﬁed, but universal, state health systems and introduced private health insurers and providers (called Health Provider Institutions or Instituciones de Salud Previsional, ISAPREs) to compete with the public system (Borzutzky, 2002; Castiglioni, 2005). The entry of the private providers had important consequences for inequality. After reforms, 11% of state health care beneficiaries—generally the highest paid and with the lowest health risks—moved to the private ISAPREs, and with them went 48% of overall health forms, 11% of state health care beneﬁciaries—generally the professional, ISAPREs) to compete with the public system (Borzutzky, 2002; Castiglioni, 2005). The exodus, in turn, provoked a ﬁnancial crisis in the public system, referred to as FONASA (Fondo Nacional de Salud, National Health Fund). In addition to this exodus, populations with greater health risks were concentrated in the public system, in part due to high fees and the rejection of high-risk beneﬁciaries by ISAPREs (Blackburn, Espinosa, & Tokman, 2004). The ISAPREs constituted a new private and higher quality class of health facilities for those who could afford it—in 1990, the spending per beneﬁciary in the private system was close to four times higher than the spending per beneﬁciary in the public system (Oyarzo, 1994). Although subsequent democratic governments increased investment in the public health sector, in 1999 spending per beneﬁciary in the private sector was still twice that of the public sector (Ministerio de Salud, 2005). Even in 2011, 80% beneﬁciaries of the private system felt “protected” or “very protected” in the private insurance system compared to just 50% that felt protected in the public FONASA system, while the opinion of the quality of the public system by its users was universally low (Adimark, 2011). The cream-skimming practices of the ISAPREs, meanwhile, have been quite lucrative: in the ﬁrst semester of 2011, for example, their earnings were 36% above capital expenses (Cid, 2011).

The private system allowed for overt discrimination based upon gender and age (Law 19.381 of May 1995). As a result, women and the aged were routinely charged higher rates than the rest of the population for private health insurance (López, 1999; Pollack, 2002; Ramirez Caballero, 2001). The high costs of private health insurance for women led insurers to offer plans that excluded maternity care, at a more affordable price. However, they were marketed to women of fertile age, thus entailing the major risk that if they became pregnant they would not have the necessary health coverage (Casas, 1999, 25, 23). The aged, similarly, faced obstacles to obtaining private health care, primarily because the cost of insurance steeply increased with age, effectively making it unaffordable because income tends to decline with increasing age.

Lagos was the ﬁrst Socialist president to lead the country since Salvador Allende, who was brutally overthrown in 1973. Different from Allende, Lagos was part of a center-left coalition of parties that dominated Chilean politics from the transition in 1990 until 2010: the Coalition of Parties for Democracy (Concertación de Partidos por la Democracia, CPD). While the main motivations for the reform were epidemiological (a demographic shift to an aging population with greater chronic health needs) (Biblioteca, 2004, 12) and ﬁscal (due to the increasingly costly public health system) (Pribble, 2008) addressing discrimination, which in turn had caused signiﬁcant inequality in access to high quality health care, was also an important motive. Speciﬁcally, a multitude of risk factor tables were employed by private insurers, most of which over-charged women and the aged beyond their predicted health costs, an unjust form of discrimination that went beyond the legally codiﬁed discrimination of charging based upon risk proﬁle. In addition, there were no regulations with regard to legal price ranges; insurers could charge what they pleased (Tegtmeier, Cid, & Sánchez, 2009, 8).

This unjust discrimination was recognized by both policy makers and engaged members of civil society as one important causal mechanism behind the sex and age inequalities that we demonstrate below; by charging higher fees to women and the aged, these groups had disproportionately lower levels of access than non-elderly males to the higher-quality private health care system, creating inequality in access to higher quality care based on gender and age. In the legislative debates, unjust gender and age discrimination by private insurers was signiﬁcant (Biblioteca, 2004, 20, 2005, 51). Technocrats involved in crafting the reform proposal were cognizant of the problem of unjust gender and age discrimination (Anonymous., 2005; Lamadrid, 2005). And, individual women’s movement activists made clear through lobbying and political connections their desire for an end to the discriminatory premiums charged by private insurers and the lack of maternity care in some private policies (Larrain, 2005; Matamala, 2005).

In 2002, the Lagos government sent a full reform package to the Congress that included ﬁve laws to reform the health sector. Two of these laws speciﬁcally addressed discrimination by private insurers and its resultant inequality. Law 19.996 of 2004 created the Plan for Universal Access with Explicit Guarantees (Plan de Acceso Universal con Garantías Explicitas, Plan AUGE). Known as the “Ley AUGE,” this law was intended to increase equity and quality of health services in the public sector by guaranteeing access to a speciﬁed list of services, setting standards of attention, and guaranteeing treatment within a speciﬁed time frame. In addition to covering a range of pathologies (initially 25, currently 69), the AUGE required coverage of an annual preventative check-up and childbirth. The universality of the AUGE meant that even the ISAPREs would have to provide all of the listed services—stopping the practice of ISAPREs offering plans that omitted key services, such as childbirth. The inclusion of childbirth in the AUGE was an important anti-discriminatory measure in that it was intended to end the practice of women of reproductive age covered by private insurance being “caught” without birthing coverage, and thus paying very high out of pocket costs if they became pregnant.

There were ﬁnancial protection components to the AUGE as well. For the ISAPREs and those in the upper income brackets of the public system and thus subject to co-pays, it placed a limit on co-pays for the guaranteed services to a maximum of 20% of costs. It also deﬁned deductibles and set upper limits on out of pocket costs, again only for those services in the AUGE package. In addition, prices for services in the AUGE are the same for men and women. In these ways, the Ley AUGE sought to eliminate discrimination and inequality.
at least within the AUGE package of services by equalizing prices and promoting solidarity among men and women and the young and the aged (Tegtmeier et al., 2009, 11).

A second law, Ley 20.015 of 2005 known as the “Ley Larga de Isapres” introduced regulations of private insurers aimed at reducing (though not eliminating) differences in premiums among groups. While differential pricing based on age and sex remained legal, the Ley Larga de Isapres introduced three mechanisms designed to reduce the gap in pricing, and stop the practice of charging women of reproductive age and the elderly more than their actual, already elevated, health care costs. The first mechanism was to establish legal price ranges for health plans that would diminish, though not eliminate price differentials among groups. The second mechanism was a mandate that insurers eliminate the multitude of risk factor tables in use. Under the reform, insurers could only use two risk factor tables. The reduction of the number of risk factor tables was designed “to avoid perfect discrimination as a result of excessive differentiation of plans” (Cid & Munoz, 2008, 1). Finally, the Ley Larga de Isapres created a Solidarity Compensation Fund (Fondo de Compensacion Solidario) between private insurers (Tegtmeier et al., 2009, 11).

The objective of the inter-ISAPRE Solidarity Compensation Fund was to provide insurers with financial compensation for their higher-risk clients. Specifically, each ISAPRE pays into a joint account whose funds are then redistributed to those private insurers whose clients’ health care costs outstrip the insurer’s capacity to pay for these. By pooling risk among private insurers, the inter-ISAPRE compensation fund was supposed to provide an incentive for private insurers to accept a wider range of clients, with women and the aged being those groups policy designers had hoped would see greater access. This reform was an attempt at market conditioning; a “government action [that] produces economic outcomes different than those which would be produced by market forces in the absence of government action.” Market conditioning has been shown as an effective tool in redistribution, in some cases increasing and other cases decreasing inequalities (Kelly, 2009, 41).

4. THE EFFECT OF REFORMS ON INEQUALITY

In the realm of health, due to social and biological differences among groups, equity, meaning the fulfillment of health care needs, is the appropriate objective rather than equality (Doyal, 2000; Sen & Östlin, 2008). Most relevant for this analysis, women have greater needs for health care services than men due to both their greater longevity and their reproductive health needs. As women and men age, they both tend to need more health care services and both sexes become more expensive as a result. But older men, on average, face greater incidence of age-related pathologies, such as heart disease and prostate cancer. Precisely when men and women need greater health care due to advancing age, their ability to pay for health insurance reduces due to retirement from the workforce. We compare gender and age equity in access to private health care in Chile before and after the 2004 health reforms using a rarely exploited government database obtained from the Chilean Health Superintendent that includes the total population of private sector health beneficiaries in each given year. Thus, where we use this database, the figures are not a sample; they are the whole population enrolled in private insurance. The years compared for the analysis of the private sector are 2002, two years before the reform, and 2008, four years after the reform. Rather than a panel approach that would compare individuals over time, this analysis compares similar groups (women and men of specific age ranges) at two points in time. A panel approach is not used because (1) there is fluctuation of persons moving between the Chilean private and public health care systems, making the continuous sample greatly reduced when there is a six-year gap, (2) it is unlikely that the same person will have the same health needs in the two years in question, and (3) changes attributed to an individual between 2002 and 2008 may not be due to the reforms, but rather due to increased age or changed health status of the insured.

(a) Dimensions measured

Gender and age equity in health is considered along two primary dimensions: (1) stratification by sex and age between public and private health systems including dependent and primary policy holder status and (2) differences between men and women, and the young and the aged, in economic access to private health care including differences in premiums and reimbursement rates. These are not the only dimensions of equity that one might measure, but these two were those that the reforms of 2004 sought to address.

Because the public and private health systems in Chile are of differing quality, with the private system generally considered by the public to be of superior quality and in which spending per beneficiary is higher, one dimension of gender equity is the degree of stratification by sex and age between the public and private health systems. Did the reforms of 2004 allow a greater number of women to enroll in the private system, and a greater number of the aged to maintain themselves in the private system? We measure change in stratification through demographic comparisons of beneficiaries in the public and private health care systems before and after reforms. Important to this analysis is the number of women with primary policy holder status, rather than dependent status, in the private system. As Orloff (1993) argues for welfare policies more generally, the ability to obtain benefits independently is an important dimension of gender equality. Thus an increase after reforms of women beneficiaries generally, and women primary policy holders more specifically, as well as an increase in the elderly in the private health system are indicators of greater gender and age equity.

The second dimension of equity measured in this study is economic access. Did the establishment of the AUGE price limits, legal premium ranges, elimination of multiple risk tables and the establishment of the inter-ISAPRE compensation fund lead to lower, less discriminatory premiums and higher reimbursements? To answer this question we apply regression analysis to see if sex and age relate to higher or lower insurance premiums, and compare these results for 2002 and 2008. We would expect, given the spirit of the 2004 reforms, that premiums would be more affordable for women and the aged after the reforms. In addition to health insurance premiums, we explore whether reimbursement rates changed after the reform.

(b) Stratification and dependency

Before the reforms of 2004, the public system, FONASA, served a larger share of girls and women than the private ISAPREs. The preponderance of females in the public system has been consistent from at least 1998 until 2009. In 2009, females accounted for 53.19% of all affiliates in FONASA (including primary policy holders and dependents) compared to 48.63% in the ISAPREs (see Table 1).

The data on beneficiaries in the private system allows us to look at changes in private sector insurance trends before and after reforms by age and sex simultaneously. When we graph
the ratio of female to male private insurance beneficiaries (primary policy holders and dependents) by age and compare 2002 (before the reform) and 2008 (after the reform) several things become clear (Figure 1). First, we find that before the reforms, in 2002, women did not reach parity of coverage with men until age 40, after which they either benefited from private insurance in equal ratios or surpassed men. After the reforms, the ratio of women to men with private insurance actually worsens—there is a significant drop in female beneficiaries of reproductive age, and women do not reach parity of private insurance coverage with men until even later, at age 50. After the reforms, women of reproductive age are less likely to obtain private health insurance. This is especially the case for dependents, as we explain below.

Stratification between the public and private health systems has diminished little when one compares male and female primary policy holders. When we graph the ratio of female to male primary policy holders in the private system, we see that the ratio of female to male primary policy holders has grown only slightly, remaining between 5 and 6 female policy holders to every 10 male policy holders, for women between the ages of 25 and 70 (Figure 2). While women rise in numbers of primary policy holders beginning at age 70, at that age, the numbers are actually quite small as most men and women revert to the public health system due to rising costs (Figure 3). Women are much more likely to be a primary policy holder in the public system, FONASA where 43% of all primary policy holders were women in 2008 compared to just 35% of all primary policy holders in the private system (FONASA, n.d.; Superintendencia, 2008). Yet, it is doubtful that the reforms caused the small increase in female primary policy holders; a more likely cause is the small, but steady increase of women in the Chilean workforce, as graphed in Figure 3. The legalization of divorce, in 2004, may also be a factor. Given these possibilities, and the very small margin of increase, we do not believe reforms were behind the increase in female primary policy holders.

Observing age in Figure 4, it is clear that the general discriminatory trend of private insurers eschewing to insure the elderly continues in Chile even after the reforms. At age 45, the number of insured in the private system begins to drop, and radically so by age 55. However, when comparing the change from 2002 to 2008, the drop has moderated somewhat, perhaps as a result of the reforms. In each age cohort, after the reforms, the numbers of older beneficiaries are slightly higher than they were in 2002, before the reforms. It appears that this increase is at least in part due to an increase in elderly

![Figure 1](image-url)

**Figure 1. Distribution of ISAPRE beneficiaries by age, before and after the reform (ratio female to male). Source: Superintendencia database. Elaboration by authors.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>4,259,190</td>
<td>4,842,162</td>
<td>9,101,352</td>
<td>1,718,744</td>
<td>1,712,601</td>
<td>3,431,345</td>
</tr>
<tr>
<td>2000</td>
<td>4,645,490</td>
<td>5,249,265</td>
<td>9,894,744</td>
<td>1,593,927</td>
<td>1,550,529</td>
<td>3,144,456</td>
</tr>
<tr>
<td>2003</td>
<td>5,271,462</td>
<td>5,938,277</td>
<td>11,209,739</td>
<td>1,316,515</td>
<td>1,288,790</td>
<td>2,605,305</td>
</tr>
<tr>
<td>2006</td>
<td>5,843,074</td>
<td>6,570,027</td>
<td>12,413,101</td>
<td>1,126,727</td>
<td>1,050,531</td>
<td>2,177,258</td>
</tr>
<tr>
<td>2009</td>
<td>6,123,176</td>
<td>6,957,486</td>
<td>13,080,662</td>
<td>1,114,316</td>
<td>1,054,757</td>
<td>2,169,073</td>
</tr>
</tbody>
</table>

Source: CASEN Surveys, on-line module with estimations from the 2002 census (http://www.mideplan.cl/casen/Estadisticas/salud.html). Elaboration by authors.
dependents on adult children’s policies (see Figure 5). Yet, even in 2008 the beneficiaries 65 and older represented just 3.7% of the private system, compared to 10.5% of the public system. This is only slightly better than 2002 when the aged accounted for only 2.9% of the private beneficiaries and 9.0% of public beneficiaries, and indicates persistence of stratification by age (FONASA, n.d.; Superintendencia, 2008).

Figure 5 displays two counter-veiling tendencies with regard to gender and age stratification and dependency after the reforms. It shows an increase in elderly dependents, especially female dependents above age 65. But it also shows a significant drop in female dependent beneficiaries of reproductive age and beyond (age 25–65) in the private system after the reforms. The reason for this drop may have to do with the high costs of covering women of reproductive age, a point we elaborate on in the next section.

In summary, important stratification by gender and age between the public and private systems persists, with more women than men and more of the aged than the young clustered in the public system. The reforms, in other words, appear to have had little, if any, effect in the expected direction—of reducing stratification. Instead, women of reproductive age were less likely to be in the private system than the public system after the reforms. The small increase of women primary policy holders is likely due to their increase in the workforce, or divorce, and not reforms. Elderly women have
increased their presence as a proportion of all users in the private system, perhaps a benefit of the reforms. Yet, men and women aged 65 and over make up less than four percent of all beneficiaries of the private health insurance system due to the fact that most still exit the system before age 65 as a result of high costs. Thus, old age discrimination has appeared to moderate somewhat, but it has not disappeared while women of reproductive age, paradoxically, have dropped in numbers in the private insurance market.

(c) Economic equity

Insurance premiums are the most basic cost that consumers face for health insurance. In Chile, all primary insurance holders pay seven percent of their salary for health insurance, for the public or private health system. In the private system however, the seven percent salary deduction will only purchase a base plan. To get better coverage, or to cover dependents, the insured must pay more; currently 85% of those insured by an ISAPRE pay above base percentage (Vergara, 2011). In addition, as stated previously, it has been legal to charge differential rates based on sex and age. In order to determine whether gender and age discrimination in premiums reduced or increased with the reforms, we utilize regression analysis to determine to what degree sex and age influence different premiums in 2002 (before the reforms) and 2008 (after the reforms). Again, we use data from the Chilean Health Superintendent, which contains information on all persons insured by the private health system.

As explained above, movement between public and private sectors and changes in health profiles over time do not allow us to provide statistical causal analysis in which we can isolate

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Figure 4. Distribution of ISAPRE beneficiaries by age, before and after the reform. Source: Superintendencia database. Elaboration by authors.

Figure 5. Distribution of ISAPRE dependents by age, before and after the reform (ratio female to male). Source: Superintendencia database. Elaboration by authors.
the effect of policy change; this would require tracking individuals and assuming that the same individual had the same health needs in 2002 and 2008. Nor do we expect premiums to universally come down—health costs almost always rise. Our focus is on comparing women’s premiums relative to men’s, by age, before and after reform, controlling for key individual and plan level factors. We want to see if the gap in premium rates between women and men and between the elderly and the young diminishes.

Our dependent variable is the insurance premium for adult policy holders, with an expectation that reforms should lead to lower premiums for women and the elderly. In general, the difference in premiums between males and females in both years is closely related with age. To better reveal this interaction, we disaggregate the costs of premiums by the age brackets used by Chilean insurers, shown in Table 2. We compare the premium costs of those with dependents (Model 1) and those without (Model 2). In each model we control for age, sex, income, and firm-plan fixed effects. In model one we control for number of dependents. Firm-plan fixed effects capture differences in quality across plans such as copayments, provider networks, other plan-specific restrictions, and the degree of differentiation across ISAPREs. The upper portion of the table includes a block of dummy variables equal to 1 if the policy holder’s age is in the respective interval, and zero otherwise. This variable captures differences in the premium contribution for policy holders of different ages. The lower portion of the table includes the interaction between the policy holder age range and a sex dummy variable. The sex dummy variable is equal to 1 if the policy holder is female, and zero otherwise. These interactions provide the difference in premium payments for a female compared to a male of the same age.

### Table 2. Linear regressions, factors that determine ISAPRE premiums, by age, sex, and dependents

<table>
<thead>
<tr>
<th>Dependent variable: Log(Premium)</th>
<th>2002</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy holder age range</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[18–20)</td>
<td>−0.316**</td>
<td>−0.432**</td>
</tr>
<tr>
<td>[20–25)</td>
<td>−0.219**</td>
<td>−0.284**</td>
</tr>
<tr>
<td>[25–30)</td>
<td>−0.0843**</td>
<td>−0.0959**</td>
</tr>
<tr>
<td>[30–35)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[35–40)</td>
<td>0.0131**</td>
<td>0.0288**</td>
</tr>
<tr>
<td>[40–45)</td>
<td>0.0265***</td>
<td>0.0080***</td>
</tr>
<tr>
<td>[45–50)</td>
<td>0.0734***</td>
<td>0.149**</td>
</tr>
<tr>
<td>[50–55)</td>
<td>0.168***</td>
<td>0.246**</td>
</tr>
<tr>
<td>[55–60)</td>
<td>0.269**</td>
<td>0.349**</td>
</tr>
<tr>
<td>[60–65)</td>
<td>0.398**</td>
<td>0.524**</td>
</tr>
<tr>
<td>[65–70)</td>
<td>0.584**</td>
<td>0.765**</td>
</tr>
<tr>
<td>[70–75)</td>
<td>0.659**</td>
<td>0.865**</td>
</tr>
<tr>
<td>[75–80)</td>
<td>0.679**</td>
<td>0.884**</td>
</tr>
<tr>
<td>[80 &amp; more)</td>
<td>0.611**</td>
<td>0.846**</td>
</tr>
<tr>
<td><strong>Policy holder age range × sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[18–20) × sex</td>
<td>0.178***</td>
<td>0.0515</td>
</tr>
<tr>
<td>[20–25) × sex</td>
<td>0.269**</td>
<td>0.154**</td>
</tr>
<tr>
<td>[25–30) × sex</td>
<td>0.259**</td>
<td>0.179**</td>
</tr>
<tr>
<td>[30–35) × sex</td>
<td>0.192**</td>
<td>0.132**</td>
</tr>
<tr>
<td>[35–40) × sex</td>
<td>0.165**</td>
<td>0.109**</td>
</tr>
<tr>
<td>[40–45) × sex</td>
<td>0.135**</td>
<td>0.0556</td>
</tr>
<tr>
<td>[45–50) × sex</td>
<td>0.123**</td>
<td>0.0165</td>
</tr>
<tr>
<td>[50–55) × sex</td>
<td>0.098**</td>
<td>−0.0232**</td>
</tr>
<tr>
<td>[55–60) × sex</td>
<td>0.049**</td>
<td>−0.0747**</td>
</tr>
<tr>
<td>[60–65) × sex</td>
<td>−0.003</td>
<td>−0.134**</td>
</tr>
<tr>
<td>[65–70) × sex</td>
<td>−0.120**</td>
<td>−0.258**</td>
</tr>
<tr>
<td>[70–75) × sex</td>
<td>−0.164**</td>
<td>−0.329**</td>
</tr>
<tr>
<td>[75–80) × sex</td>
<td>−0.183**</td>
<td>−0.337**</td>
</tr>
<tr>
<td>[80 and more) × sex</td>
<td>−0.199**</td>
<td>−0.409**</td>
</tr>
<tr>
<td><strong>Taxable income</strong></td>
<td>6.49e−07***</td>
<td>5.14e−07***</td>
</tr>
<tr>
<td><strong>Sex × income</strong></td>
<td>−2.62e−08***</td>
<td>4.30e−07***</td>
</tr>
<tr>
<td><strong>Number of dependents</strong></td>
<td>0.166</td>
<td>0.211**</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>10.26**</td>
<td>9.986**</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>1,092,735</td>
<td>465,305</td>
</tr>
<tr>
<td><strong>R-squared</strong></td>
<td>0.749</td>
<td>0.726</td>
</tr>
</tbody>
</table>

**Note:** The dependent variable is premium rate for all adult primary policy holders. The models control for age, sex, income, and plan characteristics. Model one controls for dependents. The upper portion of the table includes a block of dummy variables equal to 1 if the policy holder’s age is in the respective interval, and zero otherwise. This variable captures differences in the premium contribution for policy holders of different ages. The lower portion of the table includes the interaction between the policy holder age range and a sex dummy variable. The sex dummy variable is equal to 1 if the policy holder is female, and zero otherwise. These interactions provide the difference in premium payments for a female compared to a male of the same age. All specifications contain firm-plan fixed effects. These effects include different plans, differences in quality across plans such as copayments, provider networks, other plan-specific restrictions, and the degree of differentiation across ISAPREs. Model one includes all policy holders, and model two includes only those without dependents so that dependent costs are not complicating the comparison.

**Source:** Superintendencia database. Elaboration by authors.
contribution for policy holders of different ages. The lower portion of the table includes the interaction between the policy holder age range and a sex dummy variable. The sex dummy variable is equal to 1 if the policy holder is female, and zero otherwise. These interactions provide the difference in premium payments for a female compared to a male of the same age.

The results of our 2002 regression analyses confirm the findings of previous studies (Pollack, 2002; Ramirez Caballero, 2001) that women primary policy holders were charged more than men prior to the reforms. We show this discrimination however in a more rigorous fashion by controlling for a variety of demographic variables and firm-plan fixed effects. We find that in 2002, women primary beneficiaries of fertile age (ages 20–40) paid premiums on average 21.1% higher than male primary beneficiaries controlling for age, quality of plan, and a variety of other factors (Table 2, Model 1). For 2008, we expected the gap between men’s and women’s premiums to close at least somewhat as a result of the mechanisms described above designed to moderate some of the highest premiums. Instead, we see that the cost for health plans actually increased for women after the reforms. In 2008, women policy holders ages 20–40 paid on average 25.21% more than men for the same health care plan. Since these regressions include primary holders with and without dependents, the coefficients might be biased because of the lower (higher) cost that...

Figure 6. ISAPRE males without dependents (M2): percentage increase in premiums compared to 30-35 year-old male before and after the reform (95% CI).

Figure 7. ISAPRE females without dependents (M2): percentage increase in premiums compared to 30-35 year-old male before and after the reform (95% CI).
represents younger (older) dependents in the total cost of the plan. To remove this potential bias, in Model 2 we re-estimate the models considering only primary holders without dependents. In this case, we found that women paying significantly more after reforms. Our results show that in 2002, women primary beneficiaries of fertile age paid premiums on average 14.58% higher than male primary beneficiaries, and in 2008, women paid premiums on average 24.54% higher than male (Table 2, Model 2). This increase in cost may help to explain the drop in women beneficiaries of reproductive age in the private system overall, described above, after reforms.8

To better understand the relationship between sex and age, before and after the reform, we graph the regression results for premiums for beneficiaries without dependents in Figures 6 and 7. The graphs are constructed using a 30-35 year-old male as normalization. The results of Figure 6 show rates for males without dependents increased, but only slightly from before to after reforms with elderly males over 70 seeing the greatest increase in premium rates. The increase in rates for women without dependents—almost across the board—is more dramatic (Figure 7). Most importantly, the gap in premium rates between men and women of reproductive age remains very wide until age 60, when men and women are charged nearly the same premiums, despite the fact that men of this age have higher health risks than women.
In order to clearly attribute the rise in premiums to reforms, we need to explore several possible other factors not included in the model. One could attribute the rise in women’s premiums between 2002 and 2008 to selection, rather than discrimination. Perhaps women are choosing more expensive plans after the reforms of 2004. While our regressions control within the year for differences in plan type, across the two years of analysis, due to data limitations, there is no way to ascertain if the same women (or the same demographic of women) has changed plan preferences and chosen more generous and expensive plans. However, we can see if overall there are higher levels of expenditures on women than men by insurers between the two years (which may indicate more generous plans selected by women) or whether women’s utilization rates went up dramatically in the post-reform period, which may also indicate more generous plan choices. Yet, as we show in Figure 8, insurers’ overall spending on women remained nearly consistent from before to after the reforms. There is a slight increase in spending after the reforms but for both men and women in their later years. Moreover, while women’s utilization rates generally increased in 2008 compared to 2002, so too did the utilization rates for men. Comparing the average utilization rates per capita before and after the reform we conclude that men’s utilization rates grew faster than women’s. For males aged 0–15, utilization rates grew by 29% compared to 26% growth for females of the same age. In the 15–45 year age range, utilization rates for males grew by 36% compared to 33% for females. And among those over 45, the rate grew by 50% for males compared to 42% for females. This evidence leaves us to assume that the increase in premiums for women is due not to a change in women’s preferences or utilization rates but in some way related to reforms, and the reaction to these by insurers.

This individual level regression model also does not allow us to control for broader contextual factors like changes in the economy or government. Yet, we have no strong theoretical reason to believe that these factors would play a role. If anything, both economic change and political change from 2002 to 2008 should have led to more similar premium rates among groups, but instead we see higher gaps between men and women. Lagos’ successor, Michelle Bachelet who was in office in 2002, was from the same political coalition as Lagos, and could count on greater support in Congress than her predecessor. In terms of age, it is possible that because the AUGE was intended to reduce inequality—coverage of pregnancy and childbirth—may be incentivizing insurers to increase their costs. Insurers appear to be making up for the new costs of providing coverage, and reimbursing women less than older men, thus driving up the costs for women overall. With regard to age, while there is an improvement in the reimbursement rate for both men and women after age 50 in 2008 compared to 2002, it is notable how low the reimbursement rates for this age range were to begin with, and how low they remain, even for men, at below 70%. The improvement may be due to the effect of a number of pathologies common in old age being covered by the AUGE, thus pulling reimbursement rates up. Because a greater number of pathologies that affect the elderly are covered, there may be less room for the insurers to find other pathologies affecting this age bracket to use to make-up for profits lost. Another reason may be because such a

population (for example osteoarthritis, heart attack, and cataracts among others) and because AUGE related treatments must be reimbursed at state-specified rates, we may see an improvement in reimbursement rates for the elderly.

In 2002 the reimbursement rate for males and females was equal, but by 2008 the difference had grown to a 1.5% greater reimbursement rate for males. While the percentage difference is small, the net savings for the ISAPREs, by reimbursing women less, is large. The difference between reimbursing women 67.1% in 2008 compared to the male rate of reimbursement of 68.6% amounts to a savings for the ISAPREs (and a cost to women) of 8,811,000,000 Chilean pesos, or about $17.2 million US dollars. Further analysis of the individual services provided, and reimbursement rates per services, shows that the reimbursement rates between 2002 and 2008 fell for women primarily for high frequency reproductive health services (meaning those services which in a given month are provided more than 150 times by private insurers).

When age is also considered, the reimbursement rate pattern becomes clearer. In Figure 9 we compare reimbursement rates for women and girls by age group, before and after the reforms. Compared to 2002, in 2008, average reimbursement rates for females aged 2 to 50 drop significantly, after which reimbursement rates begin to increase. For men in the same age range (Figure 10) reimbursement rates also drop and recover after age 50—but they never drop as severely as they do for females. Moreover post-reform, after age 60, reimbursement rates for men are substantially higher than they are for women of the same age, despite the greater health risks men face in old age. In these figures for 2008, we also disaggregate reimbursements that are for the AUGE pathologies (pathologies for which the reforms put limits on patients’ out of pocket expenditures as explained above) and reimbursements for those services that fall outside of the AUGE, and are covered by a complementary plan. It is clear that for both females and males the AUGE pathologies are reimbursed at a much higher rate than other pathologies, hovering at about 95% reimbursement regardless of age whereas for the complementary plan reimbursement rates change dramatically dependent on age, and are rarely as generous as the AUGE. Yet, as stated above, even in the complementary plan alone, and thus not influenced by the AUGE, reimbursement rates for men over 60 are significantly higher than for women of the same age.

Rather than seeing an overall improvement in reimbursement rates as a result of the AUGE, it appears that insurers are finding alternative routes to maintain their profits, by reimbursing less for non-AUGE services. One reform that was intended to reduce inequality—coverage of pregnancy and childbirth—may be incentivizing insurers to increase their costs. Insurers appear to be making up for the new costs of covering pregnancy and childbirth by reimbursing women less for other reproductive-health related services, such as routine pap smears, and reimbursing older women less than older men, thus driving up the costs for women overall. With regard to age, while there is an improvement in the reimbursement rate for both men and women after age 50 in 2008 compared to 2002, it is notable how low the reimbursement rates for this age range were to begin with, and how low they remain, even for men, at below 70%. The improvement may be due to the effect of a number of pathologies common in old age being covered by the AUGE, thus pulling reimbursement rates up.

In addition to premiums, we examine reimbursement rates as another aspect of economic equity. The pressures of the AUGE reform to provide broader coverage may have had an impact on reimbursement levels; for women it requires pregnancy and delivery coverage from all insurers at specified reimbursement levels, thus reimbursement rates may have risen. In terms of age, it is possible that because the AUGE mandates coverage of several pathologies related to an aging
small numbers of older adults are enrolled in private insurance, a somewhat higher reimbursement presents little threat to profitability.

5. POLITICAL ANALYSIS

The above evaluation of the 2004 Chilean health reforms demonstrates that while the reforms were moderately effective in reducing age inequalities, gender inequalities have actually increased after the reforms. The outcome is puzzling given the fact that the reforms specifically sought to reduce gender and age discrimination. The increase in gender inequity manifested itself during policy implementation, where the politics of implementation played a role in undermining the intent of the reforms.

Key to understanding why implementation plays out as it does is examining the interests of the stake-holders involved (Thomas & Grindle, 1990). The stake-holders involved in the reforms to Chile’s private sector health system included the public, state policy makers and autonomous regulatory agencies, and private insurers. For the public, the reforms promised improvement of health coverage and accessibility, leaving little incentive to react politically once the reforms were passed. Moreover, health reforms rarely receive political attention from the public due to their complexity (Kaufman & Nelson, 2004). In Chile, there was little political reaction by the public to the reforms during implementation, only some confusion over the new rights accorded by the reform (Adimark, 2011). State policy makers had a stake in the success of the reforms, in order to deliver on political promises. Yet, much of their energy was focused on the reforms that impacted the public FONASA health system, which represented a greater challenge for implementation given its large size and financial weakness. The autonomous Health Superintendent was charged with insuring public and private insurers’ cohesion to the reform process, yet historically it had only weak regulatory power over private insurers and had in practice worked quite closely with these.

The private insurers had the most at stake in the implementation of the reforms that affected the private system. The limits on plan prices, the elimination of multiple risk factor tables, and the AUGE fiscal requirements including the new costs of required obstetrics coverage all threatened their wide profit margins. The market conditioning incentive of the inter-ISAPRE compensation fund was meant to soften the blow of these limits and incentivize ISAPREs’ acceptance of more elderly and female clients. Yet this incentive was not enough; the actions of private insurers undermined the intent of the reforms during the implementation stage.

The reforms lacked enough teeth, and failed to provide sufficiently strong incentives to counter-act the long-standing incentives to discriminate. The limitations on premiums set by the government were broad enough that private insurers pushed the outer bounds of these, and increased rather than diminished premium rates. The limited reach of the AUGE, although it now covers 69 pathologies and included 56 in 2008, also created adverse incentives to reimburse much less for those pathologies not regulated by the AUGE. As the AUGE grows, especially in the area of childbirth and reproductive health services, there may be an improvement in reimbursement rates. But a more comprehensive package of required benefits would eliminate some of insurers’ ability to price gauge by further regulating reimbursement rates.

The Inter-ISAPRE Solidarity Compensation Fund also had a number of short-comings. First, the risk compensation formula was not very reliable, because it did not include a predictor of actual morbidity or a measure of real costs. To compensate for the inability to predict costs more accurately, insurers continued their practice of enrollment discrimination based on age and gender (Ibern, Ellis, Wasem, & Vargas, 2008, 22). Second, the Fund is managed by the ISAPREs themselves, with little government oversight. This lead to infighting among ISAPREs when more profitable ISAPREs resisted distributing compensation funds to less profitable firms (García-Goni et al., 2009; Ibern et al., 2008), making the Fund less effective. Better
regulation would need to include more accurate risk calculation, and the creation of a Fund that is managed by a regulatory agency, like the Health Superintendent, rather than the ISAPREs themselves.

The broader lesson from the Chilean experience is that reforms that seek to regulate private providers must anticipate the stakes involved in the implementation process, in particular profit-seeking incentives. The weak incentives in place in Chile were not enough to change the stakes for for-profit health insurers. To truly achieve equity, reforms need to ban certain practices rather than simply incentivizing them, such as pricing based on gender and age—and this was the tactic taken when the table of risk factors based on age and gender were successfully challenged in the Chilean Courts in 2010. But even with mandates, the ISAPREs have resisted compliance, or sought other means of protecting profits. For example, the two largest ISAPREs have illegally refused to serve any employees of a list of 50 companies and government agencies, claiming that the sick leaves at these companies are too costly (Rebolledo, 2011).

Therefore, the solutions to inequities must go beyond mandates to harness profit-making incentives to increase equity, such as creating competition based on prices and quality rather than competition for the healthiest and wealthiest clients. In health care, competition based on price and quality can only happen when all consumers, regardless of risk, are part of the pool of insured, and when there is an even playing field between public and private providers. In Chile, an even playing field could be facilitated by a unitary compensation fund between the public and private sectors. This scenario does not exist in Chile today because of the politics of policy formulation, when the ISAPREs defeated the public-private solidarity fund proposal.

6. CONCLUSION

We have shown how crucial the politics of implementation is for the final inequality outcomes of social policy systems. The importance of implementation is highlighted in our evaluation of the reforms to Chile’s private sector, in which we demonstrate that the equality-enhancing intent of the reforms did not match their outcomes. After reforms, a greater number of older women and men maintain private insurance, and their reimbursement rates have improved, but these numbers are still very small in comparison to the numbers of aged in the public system. Thus, age inequalities appear to have improved, but only moderately. Gender inequalities by contrast, increased with reforms. For women under age 55, the costs of obtaining health care in the private system increased dramatically based on both on premiums and reimbursement rates. We also observed higher levels of stratification by gender between the public and private systems, with more women of reproductive age concentrated in the public system after reforms. Our model controlled for many individual level factors such as sex, age, income, and plan characteristics. We also discussed and discounted other possible factors behind this increase in costs, such as individual selection and economic and political context. We thus are left to assume that the reforms failed to have their intended effect of decreasing gender inequality because they were undermined in the implementation phase.

In the realm of health, gender, and age equity are particular challenges in health systems where private insurers and providers are involved. Women represent to health insurers a high “risk” due to their ability to become pregnant and its associated costs, and thus are especially vulnerable to price gauging. The elderly also represent increased risks due to higher incidence of chronic and high-costs ailments. To truly incentivize equity, substantial regulations need to be in place to prevent insurers from undermining equity-inducing reforms in the implementation phase. But reforms that involve private providers must also anticipate the politics of implementation, by going beyond mandates and creating more virtuous cycles of incentives that promote competition around price and quality, rather than cream-skimming.

The implementation of the 2004 Chilean health reforms demonstrates that once for-profit providers are stake-holders in social policy systems, it may be very difficult to reverse their inequitable effects. While this has been shown to be true in the policy formulation process when governments have tried to reform social policies (Ewig & Kay, 2011; Gottschalk, 2000; Hacker, 2002), our evidence shows that the political battles do not end at the point at which legislation is passed but extend into the implementation stage. Given the importance of private providers in social policy systems today, their regulation may be the most important task for promoting equality over the long term.

NOTES

1. We focus on inequalities produced by the private health sector, leaving for others to explore the equally important inequalities in Chile’s public health sector.

2. See Sirowy and Inkeles (1990) for a review.


5. Law 19.381 of May 1995 allowed for insurance rates to be adjusted by sex and age. In July 2010 the Chilean Tribunal Court, after several suits disputing the sex and age ratings of private insurers, ruled that private insurers could no longer charge differential rates based on sex. In February of 2011, the Chilean Supreme Court upheld the decision.

6. A more substantial proposal to create a solidarity compensation fund between the public and private systems was ultimately not approved by the Congress.

7. Fund reimbursements only apply to those costs incurred by the AUGE guaranteed services.

8. The differences in premiums for women of fertile age are computed as a weighted average of the respective coefficients shown in Table 2. Weights are the fraction of women that belong to a specific age range over the total women of fertile age. Alternatively, we can interpret separately each coefficient as follows: [25–30] year old females with dependents paid premiums on average 25.9% and 31.2% higher than males of the same age before and after the reform respectively.


