THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

INTERCOLLEGE PROGRAM

A REVIEW OF SOCIAL AND HEALTH POLICIES DESIGNED TO MITIGATE RACIAL HEALTH DISPARITIES AMONG ELDERS IN BRAZIL

MICHAEL J. DIRAIMO JR.
Fall 2011

A thesis
submitted in partial fulfillment
of the requirements
for baccalaureate degrees
in Premedicine, Spanish, and International Studies
with honors in Civic and Community Engagement

Reviewed and approved* by the following:

Mark Sciegaj
Associate Professor of Health Policy and Administration
Thesis Supervisor

Jeremy Cohen
Associate Vice President
and Senior Associate Dean for Undergraduate Education
Honors Adviser

* Signatures are on file in the Schreyer Honors College.

Abstract:

Objective: Socioeconomic and health disparities persist among elders in Brazil despite the support provided by pensions, the Elder Statute, and the Family Health Program. This report will examine why these protections have had limited success. It will then highlight four supplementary programs that address the underlying socioeconomic issues faced by disadvantaged elders. **Methods:** Google Scholar was used to find the most comprehensive information concerning elder health and social programs in Brazil. **Results:** Results from multiple sources showed that black elders are at higher risk for abuse and financial exploitation. Pension benefits are diluted by co-resident children and grandchildren with no other economic resources. The Elder Statute contradicts laws protecting youth. The Family Health program faces shortages in physicians and medications. Those with higher income, mostly whites, can avoid these public health troubles. **Discussion:** The government must address socioeconomic disparities head on. The supplementary programs have been successful in this regard.

Keywords: Race, elder care, Brazil, universal healthcare, elder living arrangements

Table of Contents

Introduction

Often viewed as a nation obsessed with youth, Brazil has in recent years developed a focus on elder rights, health, and economic security in what many Brazilians have called a "geroculture" (Garcez-Leme et al., 2005). Like most of the world, Brazil is experiencing an accelerated aging of its population (Sciegaj & Behr, 2010). Currently the Brazilian elder population[1] is approximately 15 million people (6.7 percent of total population), but it is anticipated to grow to 32 million (13 percent of total population) (Garcez-Leme, Deckers Leme, & Espino, 2005; CIA World Fact Book, 2011). Brazil's approach to this phenomenon is unique among Latin American countries.

Brazil's 1988 constitution laid the foundation for the health and economic security of Brazilian elders. Since 1988 Brazilian elders have been guaranteed a pension and universal access to health care via the *Sistema Único de Saúde* [SUS]. In addition, the Brazilian government enacted the Family Health program (1994) and Elder Statute (2003) to mitigate health and social disparities among elders. However, despite all of these efforts, black and mulatto[2] (mixed race, white and black) elders still experience vast socioeconomic and health disparities.

To understand better why the success of Brazil's efforts has been limited, this review will first describe the health and social conditions that disproportionately affect black and mulatto elders. Second, it will describe social and health programs designed to mitigate social and health disparities. These include formal protections—namely public pensions, the Elder Statute, and the Family Health Program—as well supplementary programs that address the underlying

[1] Note that international reporting agencies consider 60+ elderly (United Nations, 2011)

[2] Note that mulatto is an official term used by the Brazilian government (*Population,* Brasil.gov.br, 2010)

socioeconomic determinants of elder racial health disparities. The latter include Agita Brasil, a national program promoting physical activity, intergenerational daycare centers, and cash transfer programs. Finally, the review discusses the effectiveness of the formal and supplementary programs in addressing many of the socioeconomic determinants affecting black and mulatto elder health in Brazil.

Socioeconomic and Health Characteristics of Black and Mulatto Elders in Brazil

Socioeconomic Status

Blacks and mulattos in Brazil face vast socioeconomic disadvantages. As Beghin (2008) writes, "Poverty in Brazil has a color and a location: it is black, urban and concentrated in the northeast region. Two-thirds of all the poor are black…" (2). Today, blacks and mulattos make only 64.5 percent and 57.7 percent respectively of the salary of whites; 37 percent of blacks fall below the poverty line (Gradín, 2010).

Disparities in education between blacks and whites account for 36 percent of the black-white household income gap. Blacks drop out of the educational system at an earlier age and show more than double the illiteracy rate of whites; nearly 20 percent of blacks aged at least 25 had no formal education (Gradín, 2010). Moreover, black seniors tend to live in poorer environments and face more severe health problems in the first fifteen years of life, a crucial determinant of later health status (Trujillo, Vernon, Wong, & Angeles, 2005).

Poor Living Arrangements

Although intergenerational family support remains an important cultural tenet in Brazil, Bongaarts and Zimmer's findings (2002) indicate that co-residence with adult children may not be a natural and accepted transition with age, but rather a result of socioeconomic factors. In addition, DeVos and Andrade (2005) found that race also factors into elder housing choices.

Black and mulatto seniors tend to have more children and are more likely to share their own household with their children or with others (Andrade & DeVos, 2002; DeVos & Andrade, 2005). Controlling for socioeconomic indicators, DeVos and Andrade (2005) found that blacks were still more likely to live in intergenerational households. They attribute this tendency to a legacy of instability inherited by the black population after generations of slavery in Brazil. The legacy has resulted in what they call a "minority status" mentality, something shared by blacks in the United States, which fosters closer ties between familial generations as a way of "transmit[ing] survival skills to the next generation" and "help[ing] people survive in a hostile world" (570). In short, blacks are more likely to live in multigenerational households because of both socioeconomic status and a tradition of closer familial ties. They are, therefore, especially at risk for issues associated with informal care, namely overcrowding and abuse.

Overcrowding

In urban centers, houses in poor communities have become smaller with fewer rooms, making it more difficult for elders to find comfort and privacy (Caldas, 2004). Moreover, elders living in multigenerational households show lower scores for physical and mental health (Ramos, 1992). In certain cases, Saad (2006) found evidence of competition between grandparents and grandchildren for the support of adult household members; for each additional child of their own, adult children of the elderly were substantially less likely to give material support. The competition seems even more one-sided considering that elders often voluntarily consume fewer household resources, forego necessary medication, and place a particularly high priority on the needs of grandchildren (Lloyd-Sherlock, 2001).

Abuse

Gaioli and Rodrigues (2008) found that 87 percent of the cases of elder abuse reported to the Ribeirão Preto hospital occurred in the home. Nearly half of all offenders were children, grandchildren, and daughters and sons in law (Gaioli & Rodrigues, 2008). These findings are in line with international research, which indicates that elders are especially at risk when living with financially dependent children, a common trait of black families, and in situations of alcohol or drug abuse (Gaioli & Rodrigues, 2008). The high amount of stress associated with caring for elders with chronic disease may also lead to conflicts (Scazufca, Menezes, & Almeida, 2002). Though the prevalence of elder abuse in Brazil remains unknown—estimates range from 10 to 20 percent—blacks and mulattos accounted for 86 percent of victims (Abath et al., 2010). These findings are line with those of Santos et al. (2007), who identified race as a significant factor in violence against the elderly; aggravating socioeconomic factors that may lead to abuse, blacks suffer from a social construction of domination, a legacy of Brazil's slaveholding past, making them more susceptible to exploitation and violence (Abath et al., 2010).

Chronic Illness

As a result of social exclusion, black elders, especially women, show nearly two times the risk of stoke than whites (Lotufo, Goulart, & Bensenor, 2007); stroke mortality rates show an inverse association with level of schooling (Lotufo et al., 2007). Interestingly, however, hypertension, a primary cause of stroke, showed a higher prevalence in black women *independent of socioeconomic factors or overweight status*; for men this pattern did not hold (Lotufo et al., 2007).

With minimal schooling, blacks are especially at risk for dementia, which affects 25 percent to nearly 50 percent in those 85 and older, depending on education level (Caldas, 2004). Dementia syndromes represent the leading cause of incapacity and dependency and can often

result in hospitalization or complete loss of autonomy over activities of daily living (Caldas, 2004).

Depression similarly affects individuals with low income and minimal schooling; yet, in spite of its strong impact on quality of life, it remains largely undiagnosed among elders in Brazil (Snowdon, 2002). Primary care physicians, who in one study failed to diagnose nearly half of all cases of anxiety or depressive disorders, may have difficulty recognizing depression when it is co-morbid with physical disorder (Snowdon, 2002).

Also associated with lower schooling level and lower socioeconomic status, alcoholism is highly frequent in Brazilian community-dwelling elderly and is associated with males of African or mixed ethnicity (Hirata, Nakano, Pinto Junior, Litvoc, & Bottino, 2009). Alcoholism among elders can lead to various debilitating complications, including depression and dementia, malnutrition, physical impairment from falls, hypertension, and cardiovascular disease (Hirata et al., 2009). According to Hirata et al. (2009), this pattern of alcohol consumption is determined early in youth, which is consistent with Trujillo et al.'s finding (2005) that health in the first fifteen years of life affects later health status. Further, Hirata et al. (2009) hypothesize that more unfavorable social and economic factors that are associated with African descendants may explain the differential in alcohol consumption between whites and non-whites; individuals with lower socioeconomic level are twice as likely to have three or more drinks a day than those with higher socioeconomic level (Hirata et al., 2009). The high incidence of alcoholism in the black and mulatto populations also exposes elders to abuse. Caregivers who drink excessively may neglect their responsibilities to dependent elders. Seniors who drink may suffer impaired judgment and memory making them more susceptible to exploitation and violence (WHO, 2006).

Shortages in Universal Care

Although Brazil's universal healthcare system, the SUS, has focused on mitigating many of these health and socioeconomic issues, black and mulatto elders continue to face shortages in care. The SUS covers roughly 70 percent of the population, with private institutions covering the remaining 30 percent (WHO, 2008). Though at least one report claims that the public system has reduced lack of access to less than five percent (Barros & Bertoldi, 2008), the expansion of the SUS has been marked by frequent crises, including service collapse and abuse (Cornwall & Shankland, 2008). Wallace and Gutiérrez (2005) found that federal support for health services is not very redistributive, resulting in higher healthcare spending per capita in wealthier states, mostly in southern Brazil; the southeast region accounts for more than half of the total available healthcare providers in the nation (Garcez-Leme et al., 2005).

Both Blay et al., (2008) and Wallace and Gutiérrez (2005) conclude that the public system provides less access to care. Hospitals remain scarce in poorer areas, creating barriers to care that mostly run along socioeconomic lines (Cataife & Courtemanche, 2011). Blacks and other non-whites, as a result of lower socioeconomic status, are 30 percent less likely to have a regular doctor, hurting continuity of care and hindering health services utilization (Mendoza-Sassi & Béria, 2003). For the elderly that do have access, many complain that they must nevertheless travel long distances to reach an attendance unit (Martins & Massarollo, 2010). To make matters worse, many units contain no priority line for elders and provide insufficient seating, forcing many seniors to stand in line for long amounts of time (Martins & Massarollo, 2010). Demand for care in these units remains excessively high, straining available resources (Martins & Massarollo, 2010).

Caldas (2004) notes that the public system does not interface well with informal care provided by families. "When the elderly person is discharged from hospital, the caregivers

rarely receive clear information about the disease, neither any advice nor support about care, not even any instruction on how to continue the treatment" (Caldas, 2004; 21-22). The lack of formal support for family members even extends to outpatient treatment, where families struggle getting a follow-up consultation with the doctor or obtaining information about where they can find certain kinds of treatment (Caldas, 2004). When caring for individuals with severe disability, families often struggle transporting the patient to the health care unit (Caldas, 2004).

The differences in quality of service and resources between the public system and private institutions effectively exacerbate race-based health disparities in Brazil. Whereas the wealthier white population can afford to buy private insurance and avoid the long lines and delays of the public system, poorer segments of the population, mostly blacks and mulattos, must suffer the consequences of overcrowding, much as they do in their own homes. Compared to other groups, blacks continue to make fewer trips to hospitals and physician services (Trujillo et al., 2005). This result only exacerbates the negative impact of socioeconomic factor affecting health conditions in the black and mulatto populations. As Trujillo et al. (2005) show, racial health disparities do not disappear even if one controls for socioeconomic status, suggesting that blacks have less access to medical care and must rely on lower quality of care when available.

In summary, black and mulatto elders continue to face vast socioeconomic disadvantages. As a result, they are more at risk for certain chronic diseases, including hypertension and depression. Living in poor environments, they are at risk for overcrowding in the home, alcoholism, and abuse. In addition, the universal health care program has not adequately reached the black and mulatto populations, especially those living in the poor northeast region of Brazil. To address these issues, Brazil has implemented numerous protections for elders facing social exclusion and meager economic conditions. The following section will describe some of these

programs.

Social and Health Programs Addressing Race Issues

Brazil has enacted three major formal protections for elders. Pensions and the Elder Statute were created to ensure the rights of seniors and provide financial support and protections against abuse. The Family Health Program has addressed delays and shortages in coverage in the formal care system. Their success, however, has been limited. To supplement these formal protections, Brazil has also enacted numerous programs that address the underlying socioeconomic factors creating racial health disparities between whites and blacks and mulattos. Intergenerational daycare programs for elders and youth have fostered good will between family members and decreased the burden on young adult caretakers. Two major cash transfer programs, Bolsa Família and Brasil sem Miséria, have attacked the major income and education gaps plaguing Brazil. Agita Brasil, a national program promoting physical activity, has acted as a preventative health measure for chronic conditions disproportionately affecting blacks and mulattos.

Pensions: "Beneficio de Prestação Continuada"

Brazil's current social security system stems from regulations passed by the 1988 Constitution, extending mandatory coverage to most groups, establishing the minimum wage as the lowest benefit paid, and lowering the minimum retirement age (Queiroz & Figoli, 2010). In addition to a large contributory system, the Brazilian social assistance pension program, the Beneficio de Prestação Continuada (BPC), provides a basic flat-rate pension to the disabled and elders over 65 with family income of less than 25 percent of the minimum wage (Queiroz & Figoli, 2010. Originally, the program limited benefits to those who had previously worked; however, since 1988 it has covered all individuals regardless of contributions into the system

(DeVos & Andrade, 2005). This change has especially benefitted blacks and mulattos, who were less likely to have worked in the formal sector (DeVos & Andrade, 2005).

Though many elderly stand to benefit from the BPC, bureaucratic delays and a cumbersome application process make it difficult for the majority to receive payments (Global Envision, 2006). Moreover, co-residence with unemployed or underemployed children can reduce the financial benefit of the pension. As Saad (2006) concludes, rising unemployment and a growing number of people living in poverty has produced a situation in which elders serve as an important source of support for live-in caretakers. "Thus, despite the permanence of a situation of dependency of older persons on family assistance…one should not discard the prevalence of an equally important flow of support in the opposite direction," he writes (170). In many cases, elder pensions actually promote intergenerational living arrangements. "The exercise by the elderly of their preference for independent living arrangements is overridden…by the needs of their adult children," concludes Saad (2001; 4).

For the black population, this financial support system likely serves as one of the primary manifestations of the minority status mentality; money can help support young individuals who must negotiate a "hostile world" (DeVos & Andrade, 2005) characterized by high income polarization and social exclusion. Indeed, black seniors live in larger households and share their income with more individuals than do white seniors (Trujillo et al., 2005). As a result, they lose one of the most important sources of social protection for elderly people in Brazil—having their own income allows elders to maintain independence and guarantee access to other rights, such as food (Martins & Massarollo, 2010). Moreover, in situations where family members are not disposed to, or unready to help—when financial issues outweigh concern for elders, or meager pension support goes to buying alcohol or other drugs—elder care is most often "inefficient,

inadequate, and even inexistent" (Caldas, 2004; 20). There is little evidence to suggest that the Elder Statute has faired any better in mitigating health disparities between whites and non-whites.

The Elder Statute

Passed on October 1, 2003, the Elder Statute (ES) defined the rights of citizens over the age of 60 (Brasil.gov.br, 2010). Extending the rights granted in the 1994 National Policy for the Elderly, the ES lowered the welfare beneficiary age to 65, reaffirmed the government's commitment to providing free medicine to the elderly, gave seniors priority in the National Health System, and outlawed insurance company policies that discriminate against the elderly based on age (Brasil.gov.br, 2010). Additionally, the act made public transportation free for seniors, reserved three percent of government housing units for elders, and gave them a 50 percent discount on attractions and other leisure activities (Brasil.gov.br, 2010).

Perhaps most importantly, the ES defined the right to respect as "consist[ing] of inviolability of physical, psychic and moral integrity, involving the preservation of image, identity, autonomy, values, ideas and beliefs, spaces and personal objects" (Martins & Massarollo, 2010). In turn, it explicitly provided that the elderly *must not suffer abuse* and established strict criminal penalties for those who perpetrate abuse, abandon the elderly to hospitals or nursing homes without support for their basic needs, or subject them to degrading treatment by depriving them of food or *taking their property, including money* (Brasil.gov.br, 2010; emphasis added).

While it is difficult to say whether the ES has reduced the overall incidence of abuse in Brazil, it remains clear that it has had little effect on racial disparities between whites and non-whites. As Abath et al. (2010) notes, non-whites continue to shower higher incidence of elder

abuse, accounting for over 80 percent of in one sample.

The final safety net for the elderly, the Family Health Program, has done much to improve the health and quality of life of the elderly. It similarly falls short, however, of mitigating race-based health disparities in Brazil.

The Family Health Program

To combat the shortcomings of the SUS, the government has focused on expanding access through its flagship primary care system, the Family Health Program (FHP). Created in 1994 as an expansion of the Community Health Agents Program, the FHP now serves nearly 100 million people, roughly half of the population (Macinko et al., 2010). The program consists of individual healthcare units—with a team of one physician, one nurse, an auxiliary nurse, and four community health workers—that cover catchment areas of roughly 3,000 people (Barros & Bertoldi, 2008; Blasco et al., 2008). Compared to traditional units, FHP units are more likely to staff a physician specially trained in family health, provide counseling education on domestic violence and alcohol abuse, and organize care around the family unit. In addition, FHP teams are more often trained in understanding the cultural diversity of the community in which they work (Macinko et al., 2004).

Supplementing preexisting healthcare units, the FHP has been prioritized for small and medium-sized municipalities in rural and peripheral urban populations (Magalhães & Senna, 2006). The program further expands access by making home visits to elders who have trouble traveling to the healthcare units (Araújo et al., 2006). These mobile visits allow elders with chronic conditions to receive the care they need without resorting to hospitalization or other long term care options.

Despite these benefits, the FHP faces systematic shortcomings in the healthcare sector. A national shortage of family care physicians due to lack of interest in the field has reduced its capacity to provide the best kind of treatment for chronic health conditions (Blasco et al., 2008). Moreover, generalists rarely undergo continuing education or face certification procedures that test their quality of work (Blasco et al., 2008). As a result, the generalist is at "serious risk of becoming a second-rate professional" (Blasco et al., 2008; 685). To make matters worse, geriatric care also remains an unpopular option for recent graduates; as of 2005, there exists only one geriatrician for 37,000 elders (Garcez-Leme et al., 2005). For those who cannot afford to travel long distance, most likely black and mulatto elders and family, access to special care remains limited.

The FHP also faces shortages in necessary medications. The SUS guarantees free access to certain medications; however Macinko (2004) found that FHP clinics, like traditional health units, only stock necessary medications some of the time; in one study, the FHP provided only 50 percent of medicines, while over forty percent were obtained elsewhere and paid for out of pocket (Bertoldi, Barros, Wagner, Ross-Degnan, & Hallal, 2008). Of those facing out of pocket expenditures, over 25 percent were among the poorest families (Bertoldi et al., 2008). As a result, nearly 10 percent of families face catastrophic health care expenditures in Brazil; in a study of 59 countries, only Vietnam faired as poorly (Barros & Bertoldi, 2008).

Agita São Paulo, Agita Brasil

Launched in December 1996, the Agita São Paulo program increased public awareness of the importance of physical activity and sponsored programs to increase the public's activity level (Matsudo et al., 2003). The program emphasized the idea that accumulating at least 30 minutes of physical activity per day can lead to significant benefits in health and decrease the risk of

cardiovascular disease by as much as 44 percent (Matsudo et al., 2003). By 2003 the program had established more than 50 municipal committees to plan numerous events, including "Agita Melhoridade" (Move, Elderly People), a mega-event aimed at increasing the activity level of the state's entire elderly population. The program organizes a walk on the National Day of Older Persons and has recently been part of the World Health Organization Global Embrace celebration (Matsudo et al., 2003).

As a result of São Paulo's initiative, the Brazilian Ministry of Health launched a national program "Agita Brasil" in 2002 aimed especially at promoting physical activity in people who are at risk for noncummunicable chronic diseases. Partnering with state departments, universities, and private businesses, the national program has launched 30 programs (as of 2003) across every state (Matsudo et al., 2003). More than 2,300 doctors, nurses, nutritionists, and other professionals have participated in these programs (Matsudo et al., 2003). As a result of the state and national programs, the number of physically active people in Brazil grew between 1999 and 2002 (Matsudo et al., 2003).

Elder Daycare

The Casa de Santa Ana, a daycare center for senior citizens in the City of God, a slum in Rio de Janeiro, provides health services, social and educational activities, such as literacy and music classes and exercise groups, and support to the families of over 120 sixty-and-over elders (Global Envision, 2006). Perhaps most importantly, the center brings together local youth and seniors to build community and provide mutual care and support between generations (Global Envision, 2006).

In a similar intergenerational program where elders met every few weeks with young school students, Souza (2003) found that the elders and youth both benefited greatly. The

students expressed satisfaction with learning about the past and indicated that they had gained an appreciation of the value of elderly people. Perhaps most importantly, they reported a significant improvement in the relationship not only with their own grandparents, but also with their parents (Souza, 2003). On the other hand, the elders expressed pride and satisfaction with providing mentorship to the young generation and reported that they had found their own importance in the family while participating in outside activities. The elders also reported relief of their pain and aches and, in certain cases, their depressive symptoms. As Souza (2003) notes, the program's results support previous findings that social cohesion improves health and quality of life among elders.

Bolsa Família, Brasil Sem Miséria

The Bolsa Família Program (BFP) also aims to reduce socioeconomic disparities by providing direct cash transfers to poor families who keep their children in school and under regular medical supervision (World Bank [WB], 2010). Launched in October 2003, the BFP helped raise nearly 20 million people out of poverty and significantly reduced income inequality by 2009, making it one of the most effective social protection programs in the world according to the World Bank (WB) (2010). One report estimates that without the assistance of the BFP and social security pension funds, the percentage of poor people in Brazil would rise from 30 percent to 42 percent (Vaitsman, Andrade, & Farias, 2009). Now in its second phase, the BFP will benefit at least 75 percent of families in the 20 percent poorest group, help at least 90 percent of beneficiary school children attend school, and ensure at least 75 percent of young children and pregnant mothers comply with health conditionalities (WB, 2010).

In 2011, Brazil announced its new National Poverty Alleviation Plan (Brasil Sem Miséria) under president Dilma Rousseff. Aiming to lift 16.2 million people out of poverty, the

program will offer job training to urban citizens, increased access to food, water, and electricity in rural and urban areas, improved education programs for raising literacy, and access to 7000 Centers for Social Assistance across the country (Brasil.gov.br, 2011). In addition, the program will add another 1.3 million children and 800,000 families to Bolsa Família (Brasil.gov.br, 2011).

In summary, Brazil has addressed racial and socioeconomic disparities by implementing formal social and health programs targeted at elder health. Public pensions and the Elder Statute have provided financial support and protections against abuse. The Family Health Program has addressed shortages in health care coverage. Brazil has also implemented supplementary programs, including Agita Brasil, elder daycare, and cash transfer programs, that are designed to address the underlying socioeconomic issues affecting racial health disparities. The following section will evaluate each program and discuss the reasons why the supplementary programs have been more successful at mitigating health disparities.

Discussion

Black and mulatto elders continue to suffer disproportionately from dementia, depression, stroke, and alcoholism. With limited financial resources, they have little recourse but to live in overcrowded homes; further, a minority status mentality, well ingrained in black culture after years of slavery and exploitation, drives many black elders to share scare resources with unemployed or underplayed children and grandchildren. The following sections will first describe why the three major protections discussed above have had little success in mitigating these disparities. Finally, it will explain why Agita Brasil, elder daycare, and the cash transfer programs are more likely to succeed in this regard.

Pensions Exacerbate Issues with Informal Care

Ultimately, the social support system in Brazil may in fact be creating a cycle in which low income groups cannot escape their destitute living arrangements. Non-white elders, who are both culturally inclined and socioeconomically driven to live in intergenerational households, are more likely to share their pension income with family members, giving young, unemployed adult caretakers, incentive to co-reside with their elders. Further, the steady household income, however meager, may provide incentive for younger adults to leave the job market, where they face discrimination and lower earning potential (Arias, Yamada & Tejerina, 2004); as it is, the social security dependency ratio in Brazil stands at 1.7 contributors per beneficiary, a figure even lower than that of Germany and the United States of America, which have much more mature systems (Saad, 2001). With more individuals out of work, family interaction would likely increase and financial resources would be stretched thinner, creating an environment more conducive to abuse (Abath et al, 2010; Gaioli & Rodrigues, 2008). Finally, the inability or unwillingness of younger generations to find work will continue to exacerbate the socioeconomic disparities that create vast differences in the quality of living arrangements between whites and non-whites.

Surely, the elimination of elder pensions altogether would be no solution. As unemployment remains high, and blacks and mulattos continue to earn less and receive less schooling, the elder pension remains a necessity. One thing is sure, however: the BPC remains an inadequate resource for promoting elder autonomy and one that may even exacerbate race-based health disparities.

The Elder Statute Contradicts Protections for Youth

The ES clearly represents a triumph for elder rights. Among other benefits, the provision of free transportation facilitates healthy behaviors and stimulates leisure, a protective measure

against the onset of dementia and depression (Araújo et al., 2006; Verghese et al., 2003). The priority given to elders in the SUS also assures timely care. Despite these strengths, however, the ES fails to consider cultural values in the black population that may lead to a conflict between the provision on elder autonomy and protection against abuse. That is, the Statute explicitly prohibits family members from taking their elder's money; however, the it also protects the elder's cultural beliefs and values, including those that drive elders to *voluntarily* give away their own money, however meager the amount. In black households, where a minority status mentality promotes financial support transfers from elders to youth, the ES implicitly supports a practice that directly conflicts with its protection against financial abuse.

Martins and Massarollo (2010) also point out that the ES and the Child and Adolescent Statutes directly contradict each other. While the ES mandates absolute priority for elderly rights, the latter states that it is the duty of the family, community, and society to give absolute priority to the rights of children and adolescents. When taken together, "it is not that simple to decide who really must have preference" (Martins & Massarollo, 2010; 483). In some situations, "one law will be transgressed in order to respect another one" (483). This situation likely arises most often in the black families, which tend to have more children and live in larger households. Indeed, Saad (2006) found that young adult parents often give priority to their own children over co-resident elders. Moreover, elders living in multigenerational homes are more likely to forego important medications and give higher priority to the health and wellbeing of grandchildren (Lloyd-Sherlock, 2001).

Despite its benefits, the Elder Statute has failed to address cultural aspects of the black population that hinder elder care and reduce autonomy. Unless the government directly addresses socioeconomic factors that create situations of conflict between elders and younger

family members, there will continue to be vast differentials in the health and quality of life between blacks and whites.

The Family Health Program Faces Shortages in Supplies of Medicine and Doctors

The Family Health Program has expanded access to care and reduced hospitalization rates for stroke and other conditions. In addition, it has been more receptive to the importance of the family and to cultural diversity, making it a stronger care model for the black and mulatto populations. Nevertheless, shortages of family health physicians have hindered its ability to provide adequate care to a wider subset of the population. "Family physicians offer more than a simple sum of solutions to their patient's diverse health problems because they realize that confronting those problems is much more complex than solving an algebra equation" (Blasco et al., 2008; 685). Without specific training in family health, physicians may lack the compassion and broad perspective necessary for dealing with both families and elders. This shortcoming has likely exacerbated the discontinuity of care between physicians and the informal care network, leaving family members at a significant disadvantage when caring for dependent elders. Black and mulatto elders remain at a special disadvantage because 1) they are less likely to seek formal care, and 2) when they do, they may receive little guidance at strengthening their vital informal care networks.

In addition shortages of important medications have hindered the FHP's capacity to provide adequate care. Even if the FHP extends access to the entire population, disparities in health that favor the rich would persist, indicating that private healthcare is a necessity in Brazil (Cataife & Courtemanche, 2011). As a result, white individuals who can afford private care will continue to show stronger signs of health than the black and mulatto populations who must rely on public care.

To successfully combat racial health disparities, the government must be mindful of cultural choices that may lead to unhealthy living arrangements and risky behaviors; however, most importantly it must address head on the socioeconomic factors affecting these groups. Fortunately, Agita Brasil, elder daycare centers, and the cash transfer programs have been successful in this regard.

Agita São Paulo, Agita Brasil Provide Preventative Health Solutions

With a preventative approach to health, Agita São Paulo and Agita Brasil can help elders avoid the long lines and subpar care in the public health system. Black elders, especially women, can benefit greatly from the focus on preventing hypertension, a major cause of stroke. Moreover, by promoting an active lifestyle, the two programs can mitigate many of the issues associated with living in cramped, overcrowded living spaces. Elders and youth can foster stronger and more respectful family ties by spending quality time together outside the house, in an environment less conducive to abuse. The interaction may even help to alleviate cases of depression in elders and reduce the stressful burden on family caretakers. Though helpful to elders of all races, blacks and mulattos can benefit most from the two programs.

Elder Daycare promotes Stronger Bonds Between Generations

The Casa de Santa Ana and similar programs can be particularly helpful for blacks and other low-income groups. Raising more children, especially in a disadvantaged environment, can put increased pressure on parents to focus on caring for their children and can hinder their ability to participate in mental, physical, social, or leisure activities (Chaves, Camozzato, Eizirik and Kaye, 2009). According to Verghese et al. (2003), participating in mental building or leisure activities can help prevent dementia. As a result, parents with large numbers of children, a tendency more common in black families, are less able to reduce the likelihood of developing

dementia. The Casa de Santa Ana program can thus help promote health among the black population in four primary ways. First, it can provide leisure activities and reduce risky behavior at a young age, an important period that can directly affect health in later life (Trujillo et al., 2005). Second, it can reduce the child caring burden of young adult parents by placing some of the burden on the daycare center; the parents would then have more time to participate in leisure and mental building activities. Third, the program can help mitigate the risk of dementia among elders by facilitating their participation in leisure activities. Finally, the program can help build social cohesion and respect within the entire family structure to promote intra-family leisure activities.

Bolsa Família and Brasil Sem Miséria Target Gaps in Education and Income

By providing monetary incentives to improve education and healthy behaviors, Bolsa Família and Brasil Sem Miséria stand to be especially beneficial to the black and mulatto populations, who sit near the bottom of the income and schooling spectra. Given the relationship between health and socioeconomic status, these programs have directly addressed the root of racial health disparities in Brazil. The extra income can help reduce catastrophic expenditure on medicines and potentially provide increased access to healthcare services beyond those provided by local health clinics. More importantly, it will provide financial stability for young adults who would otherwise rely on their elders' monthly pensions. With fewer financial woes, family conflicts would be less prevalent, reducing the risk of elder abuse.

Conclusion

Although pensions, the Elder Statute, and the Family Health Program have had limited success in mitigating racial health disparities, Brazil's supplementary programs have shown promise. By promoting physical activity, spurring meaningful interactions with younger

generations, and providing desperately needed sources of income, Brasil sem Miseria and the other supplementary programs have successfully addressed the underlying factors that lead to disparities in health among whites and non-whites in Brazil. As such, they circumvent the bureaucratic and cultural issues hindering the success of the formal social and health protections. More importantly, the supplementary programs demonstrate that addressing socioeconomic factors directly is not only possible, but is also sometimes more effective at reducing disparities than even the most extensive health and social security systems.

Given its traditional focus on targeted programs for elders and other groups, the United States can learn from the success of these expansive programs. Brazil has realized that elder issues do not exist in a vacuum. Socioeconomic factors affecting youth and young adults can have a drastic effect on elder health. By targeting the entire Brazilian population, rather than focusing on elders or other specific groups, Agita Brasil and the cash transfer programs have successfully addressed the connection between generations. The elder day care programs have similarly mitigated potential conflicts between youth and older family members. The United States should consider similar strategies.

References

A new kind of daycare in Brazil. (2006). Retrieved from Global Envision website: http://www.globalenvision.org/library/10/1066

Abath, M. D. B., Leal, M. C. C., Filho, D. A. D. M., & Marques, A. P. D. O. (2010). Physical abuse of older people reported at the Institute of Forensic Medicine in Recife, Pernambuco State, Brazil. *Cadernos de Saúde Pública, Rio de Janeiro*.

Acting on Ageing. (2011). Retrieved 2011, from United Nations website: http://www.un.org/en/aboutun/copyright/

Acts: Rights and Duties. (2010). Retrieved from Brasil.gov.br website: http://www.brasil.gov.br/sobre/citizenship/individual-rights-and-duties/statutes-1/br_model1?set_language=en

Andrade, F. C. D., & DeVos, S. (2002). *An Analysis of Living Arrangements Among Elderly Women in Brazil*. Retrieved from http://www.abep.nepo.unicamp.br/docs/anais/pdf/2002/Com_ENV_ST23_Andrade_texto.pdf

Araújo, S. S., Freire, D., Padilha, D. M., & Baldisserotto, J. (2006). Social support, health and oral health promotion in the elderly population in Brazil. *Interface*.

Arias, O., Yamada, G., & Tejerina, L. (2004). Education, family background and racial earnings inequality in Brazil. *International Journal of Manpower*.

Barros, A. J., & Bertoldi, A. D. (2008). Out-of-pocket health expenditure in a population covered by the Family Health Program in Brazil. *International Journal of Epidemiology*.

Beghin, N. (2008). *Notes on inequality and poverty in Brazil: Current situation and challenges*.

Bertoldi, A. D., Barros, A. J. D. D., Wagner, A., Ross-Degnan, D., & Hallal, P. C. (2008). Medicine access and utilization in a population covered by primary health care in Brazil. *Health Policy*.

Blasco, P. G., Levites, M. R., Janaudis, M. A., Moreto, G., Roncoletta, A. F. T., & Benedetto, M. A. C. D. (2008). Family medicine education in Brazil: Challenges, opportunities, and innovations. *Academic Medicine*.

Blay, S. L., Fillenbaum, G. G., Andreoli, S. B., & Gastal, F. L. (2008). Equity of access to outpatient care and hospitalization among older community residents in Brazil. *Medical Care*.

Bongaarts, J., & Zimmer, Z. (2002). Living arrangements of older adults in the developing world: An analysis of DHS household surveys. *The Journals of Gerontology: Series B*.

Brazil launches national poverty alleviation plan. (2011). Retrieved from Brasil.gov.br website: http://www.brasil.gov.br/para/press/press-releases/june-1/brazil-launches-national-poverty-alleviation-plan/newsitem_view?set_language=en

Caldas, C. F. (2004). Aging in Brazil: Dependency and family care. *BOLD*

Cataife, G., & Courtemanche, C. (2011). *Is universal health care in Brazil really universal?* Retrieved from National Bureau of Economic Research website: http://www.nber.org/papers/w17069

Chaves, M. L., Camozzato, A. L., Eizirik, C. L., & Kaye, J. (2009). Predictors of normal and successful aging among urban-dwelling elderly Brazilians. *Journal of Gerontology: Psychological Sciences*.

CIA World Fact Book. (2011). Retrieved from https://www.cia.gov/library/publications/theworld-factbook/geos/br.html

Cornwall, A., & Shankland, A. (2008). Engaging citizens: Lessons from building Brazil's national health system. *Social Science and Medicine*.

DeVos, S., & Andrade, F. (2005). Race and independent living among elderly Brazilians since 1980. *Journal of Comparative Family Studies*.

Flawed but fair: Brazil's health care system reaches out to the poor. (2008). Retrieved from World Health Organization website: http://www.who.int/bulletin/volumes/86/4/08-030408/en/index.html

Gaioli, C. C. L. D. O., & Rodrigues, R. A. P. (2008). Occurrence of domestic elder abuse. *Rev Latino-Am Enfermagem*.

Garcez-Leme, L., Deckers Leme, M., & Espino, D. V. (2005). Geriatrics in Brazil: A big country with big opportunities. *Journal of the American Geriatrics Society*.

Gradín, C. (2010). *Race and income distribution: Evidence from the US, Brazil and South Africa*. Retrieved from Society for the Study of Economic Inequality website: http://www.ecineq.org/milano/WP/ECINEQ2010-179.pdf

Hirata, E. S., Nakano, E. Y., Pinto Junior, J. A., Litvoc, J., & Bottino, C. M. C. (2009). Prevalence and correlates of alcoholism in community-dwelling elderly living in São Paulo, Brazil. *International Journal of Geriatric Psychiatry*.

Lifting families out of poverty in Brazil-Bolsa Familia Program. (2010). Retrieved from The World Bank website: http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/LACEXT/BRAZILEXTN/0,,contentMDK:20754490~pagePK:141137~piPK:141127~theSitePK:322341,00.html

Lloyd-Sherlock, P. (2001). *Living arrangements of older persons and poverty*. Retrieved from United Nations website: http://www.un.org/esa/population/publications/bulletin42_43/lloydsherlock.pdf

Lotufo, P. A., Goulart, A. C., & Bensenor, I. M. (2007). Race, gender and stroke subtypes mortality in São Paulo, Brazil. *Arq Neuropsiquiatr*.

Macinko, J., Almeida, C., Oliveira, E., & Sá, P. (2004). Organization and delivery of primary health care services in Petrópolis, Brazil. *International Journal of Health Planning and Management*.

Macinko, J., Dourado, I., Aquino, R., Bonolo, P. D. F., Lima-Costa, M. F., Medina, M. G., . . . de Oliveira, V. B. (2010, December). Major expansion of primary care in Brazil linked to decline in unnecessary hospitalization. *Health Affairs*.

Magalhães, R., & Senna, M. D. C. M. (2006). Local implementation of the Family Health Program in Brazil. *Cadernos de Saúde Pública, Rio de Janeiro*.

Martins, M. S., & Massarollo, M. C. K. B. (2010). Knowledge of the elderly about their rights. *Acta Paulista de Enfermagem*.

Matsudo, S., Matsudo, V., Araujo, T., Andrade, D., Andrade, E., Oliveira, L., & Braggion, G. (2003). The Agita São Paulo Program as a model for using physical activity to promote health. *Pan American Journal of Public Health*.

Mendoza-Sassi, R., & Béria, J. U. (2003). Prevalence of having a regular doctor, associated factors, and the effect on health services utilization: A population-based study in southern Brazil. *Cadernos de Saúde Pública, Rio de Janeiro*.

Population. (2010). Retrieved 2011, from Brasil.gov.br website: http://www.brasil.gov.br/sobre/geography/population/ethnic-groups-1

Queiroz, B. L., & Figoli, M. G. B. (2010). *The social protection system for the elderly in Brazil*. Retrieved from Princeton University website: http://paa2011.princeton.edu/download.aspx?submissionId=110746

Ramos, L. (1992). Family support for old people in Sao Paulo, Brazil. In *Family support for the elderly: The International Experience*.

Saad, P. M. (2001). *Impact of pension reform on the living arrangements of older persons in latin america*. Retrieved from United Nations website: http://www.un.org/esa/population/publications/bulletin42_43/saad.pdf

Saad, P. M. (2006). *Informal support transfers of the elderly in Brazil and Latin America*. Retrieved from http://www.ipea.gov.br/sites/000/2/publicacoes/livros/sixty_plus/Arq_13_Cap_06.pdf

Scazufca, M., Menezes, P. R., & Almeida, O. P. (2002). Caregiver burden in an elderly population with depression in São Paulo, Brazil. *Social Psychiatry and Psychiatric Epidemiology*.

Sciegaj, M., & Behr, R. (2010). Lessons for the United States from countries adapting to the consequences of aging populations. *Journal of Technology and Disability*.

Snowdon, J. (2002). How high is the prevalence of depression in old age? *Revista Brasileira de Psiquiatria*.

Souza, E. M. D. (2003). Intergenerational interaction in health promotion: A qualitative study in Brazil. *Rev Saúde Pública*.

Trujillo, A. J., Vernon, J. A., Wong, L., & Angeles, G. (2005). *Race and health disparities among seniors in urban areas in Brazil*. Paper presented at National Bureau of Economic Research.

Vaitsman, J., Andrade, G. R. B. D., & Farias, L. O. (2009). Social protection in Brazil: What has changed in social assistance after the 1988 Constitution. *Ciencia & Saúde Coletiva*.

Verghese, J., Lipton, R. B., Katz, M. J., Hall, C. B., Derby, C. A., Kuslansky, G., . . . Sliwinski, M. (2003). Leisure activities and the risk of dementia in the elderly. *New England Journal of Medicine*.

Wallace, S. P., & Gutiérrez, V. F. (2005). Equity of access to health care for older adults in four major Latin American cities. *Pan American Journal of Public Health*.

Academic Vita of Michael J. DiRaimo Jr.

Michael J. DiRaimo Jr.
1780 Cambridge Dr.
State College, PA 16803
Mjd5199@psu.edu

Education:

Bachelor of Science degrees in: Premedicine; Spanish; and International Studies
Honors in Civic and Community Engagement, Pennsylvania State University, Fall 2011
Thesis Title: A Review of Social and Health Policies Designed to Mitigate Racial Health Disparities Among Elders in Brazil
Thesis Supervisor: Mark Sciegaj

Work Experience:

Intern: Office of the V.P. for Research, Penn State January 2010 to present

- Research best practices for developing an engineering consulting program
- Served as Project Manager, lead writer, and editor for a team of 6 students in documenting the Learning Factory's relationships with Pennsylvania companies

Research Asst: Comparative Literature Dept., Penn State May to September 2011

- Analyzed and briefed court decisions that cite the author Franz Kafka or use the word Kafkaesque for a study by Dr. Thomas Beebee

Research Asst: Health Policy and Administration Dept. January to June 2010

- Wrote a policy brief on Brazil for the International Aging Project under Dr. Mark Sciegaj

Research Asst: Anthropology Dept. August to December 2009

- Collected and analyzed data on gender-specific facial features for Dr. David Puts' Lab

Awards:

- Student Marshal, Eberly College of Science
- The Duffy Premedicine Endowment
- The Erik D. Steindl Award (Spanish Dept.) for academic excellence and community service
- The Evan Pugh Award
- The President's Freshman Award and The President Sparks Award

Professional Memberships:

- Phi Beta Kappa Honor Society
- Phi Kappa Phi Honor Society

Publications:

DiRaimo MJ Jr., Maney MD, Deitch JR. 2008 Distal biceps tendon repair using the toggle loc with zip loop. *Orthopedic*s 31(12). http://www.orthosupersite.com/view.aspx?rid=34706

Activities:

- Student representative for the NSF conference on Partnerships for Innovation (Spring 2010)
- Volunteer for the PA Commission on Sentencing
- Treasurer of Phi Beta Kappa Lambda Chapter Student Organization (Spring 2011 to present)

International Education:

Studied abroad at the University of Salamanca, Spain in Spring 2009.