South Africa:

The Effects of Apartheid on Health Inequity

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South Africa is classified as an upper-middle income country, but relatively few citizens enjoy an upper-middle class life. The policies of apartheid, which ruled South Africa from 1948 to 1994, have left entrenched social, economic, and health inequalities between black and white South Africans. As the most highly developed country in Africa, it still presents exceedingly poor health outcomes. Much of this is due to the calamitous impact of the HIV/AIDS crisis. Given its complex past and ambitious future plans, South Africa presents a fascinating case study of how historical and socio-political context impacts health policy, public health, and health outcomes.

South Africa is located on the southern tip of Africa. Its two main physiographic categories include the interior plateau and the land between the plateau and the coast (Statistics South Africa, 2019). The most populated city in South Africa is Johannesburg with almost 13 million people. For comparison, New York has about 9 million residents. Today, the estimated total population is 55,956,900 million people, with an ethnic group breakdown of 81% Black African, 9% Coloured (mixed raced), 3% Indian or Asian, and 8% White (Statistics South Africa, 2019).

To understand the current state of South Africa, one must first begin with a thorough discussion of European colonization in the area and its impact on South African society. Prior to European colonialism, the southern tip of Africa was populated by diverse pastoral and agricultural communities with complex political, cultural, and economic ties. These relationships were disrupted in 1652 by the arrival of a large number of Dutch colonists. Over time, these settlers developed their own culture and language, creating a new ethnic group: the Afrikaners (“Afrikaner,” 2010). In 1806, Britain conquered the Cape Colony, leading to a new wave of British settlers. The next one hundred years saw increasing tension and conflict between the new

British settlers, the Afrikaners, and the native African people. When the Union of South Africa joined the British Empire in 1910, only English-speaking whites and the Afrikaners – who together comprised a white minority in South Africa – were granted the right to vote (Thompson, 2001, p. xx – xxi). However, the Afrikaners were considerably more impoverished than their English-speaking counterparts. Thus, when the Afrikaner political party gained power in 1948, they instituted policies meant to benefit Afrikaners in employment and business (Thompson, 2001, p. 187). This was the beginning of apartheid – the institutionalized racial segregation and systematic oppression of black South Africans, as well as Indian immigrants and the multiracial ethnic group known as Coloureds.

Under apartheid, non-white South Africans were banned from most land ownership, forcibly relocated outside of city-centers to rural "homelands", excluded from well-paying jobs, and forced to carry racial classification documents when visiting white areas. Health care and education were segregated, with black hospitals and schools severely underfunded and understaffed (Horwitz, 2009, p.1). For 50 years, black South Africans suffered under and protested this unjust system. Widespread resistance and economic pressure from international sanctions eventually led to the appeal of apartheid policies in the early 1990s ("The End of Apartheid," 2008). In 1994, South Africa held its first democratic election, and Nelson Mandela was sworn in as the first black president of South Africa. The new Constitution declared equal rights for all regardless of race, ethnicity, gender, culture, or any other identity, as well as a guaranteed right to health care, housing, work, and education (1996).

Today, South Africa's multiethnic society reflects the country's complex history. The Constitution recognizes 11 official languages, with most citizens speaking Zulu, Xhosa, or Afrikaans as their first language. English operates as the lingua franca and is used in areas of

business and education. Most South Africans are Christians but belong to a wide variety of denominations, including the Dutch Reformed Church, the Anglican Church, and the Zion Christian Church, which combines Christian and traditional African beliefs. There are also sizable Hindu and Muslim populations (CultureGrams, 2014). For these displays of multiculturalism, South Africa is often referred to as a "Rainbow Nation" – an ideal reflected in the South African flag, which sports six different colors. Unfortunately, the legacy of apartheid is still keenly felt, and the ideal of racial equality in all aspects of South African life has not yet been realized.

The impact of apartheid can clearly be seen through the inequality present in the South African economy. Although South Africa boasts the largest economy in Africa - netting a GDP of over $368.29 billion last year - economic inequality is extreme (World Development Indicators Database, 2018). The top 1 percent of the population own over 70 percent of the nation's wealth, while the bottom 60 percent control only 7 percent (Beaubien, 2018). In addition, the Gini coefficient (a commonly used indicator of inequality) is 0.73 for South Africa, indicating that it is one of the most unequal countries in the world (Mooney, 2008). This distribution means that approximately 50% of South Africa's population - over 25 million people - live below the poverty line (South Africa Statistics, 2019). The vast majority of those affected are black; less than 1 percent of white South Africans live in poverty (Chutel, 2017). Furthermore, South Africa also suffers from an extremely high unemployment rate (29%) (South Africa Statistics, 2019). Once again, the burden is disproportionately placed on black South Africans: 46 percent of black South Africans are unemployed, whereas only 9.8 percent of white people are unemployed (South Africa Statistics, n.d.).

These disparities are the direct result of apartheid policies. Black South Africans had limited educational opportunities and were subject to a highly restrictive job reservation policy. As a result, black South Africans were "locked out" of the economy, especially from skilled jobs. The socioeconomic marginalization enforced by apartheid policies entrenched these South Africans in poverty and has become extremely difficult for future generations to overcome despite the official end of apartheid in 1994. Furthermore, the forced relocation of black South Africans to rural homelands moved them away from the job opportunities of city centers (Adonis, 2018). While significant strides have been made by black and other marginalized groups since the end of apartheid, the economic consequences of racial segregation have not been fully addressed.

Differences between racial groups also persist when analyzing demographics. The population pyramids, shown in Figure 1 show stark differences between the racial groups present in South Africa; the pyramid for the white South African population is much more evenly distributed between age groups, resembling that of a developed country, while the population pyramid for black South Africans more closely resembles those characteristic of a developing country (Alexander, 2019). South Africa also has an extremely young population due to the HIV/AIDS crisis, with a median age of 27 years and approximately 28.8% of the population under 15 years old (Statistics South Africa, 2019). This is also shown in figure 1, as the overall pyramid trends towards younger populations for both men and women. South Africa is also a relatively urban country, with approximately 66.9% of the population living in an urban area and more people moving to urban areas each year. (South Africa- The World Factbook, n.d.).

South Africa's demographic transition is considered to be nearly complete. From the 1950s to the early 1990s, South Africa has experienced a distinct and nearly equal decline in

both crude birth rates and crude death rates. However, in the mid-1990s, the crude death rate nearly doubled with the HIV/AIDS crisis to 14.8 per thousand in 2006 and only began falling again in 2010. Fertility has also declined since the 1950s in South Africa, from six children per woman in the late 1950s to 2.6 children per woman today. As shown in Figure 2, the crude birth and death rates are close to equal, indicating that South Africa may be nearing the end of its demographic transition (Moultrie, 2017). The population pyramid shown in Figure 1 also shows a slight 'youth bulge,' which could indicate a transition to a more 'rectangular' pyramid typical of a developed country. However, South Africa's economy has not been able to reap the benefits of the changing age structure and the theoretical increase in productivity that should follow a decrease in fertility and mortality; this is partially due to the extremely high unemployment and insufficient education, especially among young people, preventing them from utilizing their most productive years, as well as the devastating consequences of the HIV/AIDS crisis (Moultrie, 2017).

South Africa has also undergone a corresponding epidemiological transition, with non-communicable diseases becoming increasingly prevalent due to an increase in the associated risk factors along with an aging population. In 2017, eight out of ten health problems causing the most disability were classified as non-communicable diseases such as diabetes, COPD, anxiety, depression etc (IHME, 2017). However, communicable diseases are still responsible for a significant amount of death and disability in South Africa. Interestingly, South Africa experienced a temporary reversal in its epidemiological transition in the early 1990s to the mid-2000s, driven by the sudden increase in HIV/AIDS and TB- related mortality (Kabudula, 2017). In addition, interpersonal violence and road injuries were the eighth and ninth top causes of death in South Africa in 2012 (IHME, 2017). Thus, South Africa is currently experiencing a triple

disease burden from communicable, non-communicable, and injury-related disorders (Norman, 2007, 649-732).

The average life expectancy for the South Africa today is 64 years, with male life expectancy around 61.5 years and female life expectancy around 67 years. The life expectancy for both men and women dropped significantly to 53.4 years from 63 years in the 1990s due to the HIV/AIDS crisis and only recovered recently in 2015 ("World Bank Indicators," n.d.). Currently, South Africa exhibits an infant mortality rate (IMR) of 35 deaths per 1,000 live births in 2017, a child mortality rate of 7 deaths per 1,000 children, and an under-5 mortality rate (U5MR) at 42 deaths per 1,000 live births, which are all much higher than average for an upper-middle income country (South Africa Statistics, n.d.). The maternal mortality ratio (MMR) in 2017 was 119 deaths per 100,000 live births, down from 650 deaths in 2007 in the height of the HIV/AIDs crisis. However, the current MMR is still approximately twice the average for an upper-middle income country. While there is still a great deal of work to do improve health outcomes, as shown by these various indicators, neonatal mortality, IMR, and U5MR have all decreased in South Africa for the past 20 years. Despite its status as one of the most advanced countries in Africa, South Africa has relatively poor health outcomes given its ostensible economic development ("World Bank Indicators," n.d.).

As has been previously discussed, the impact of the HIV/AIDS crisis in South Africa cannot be overstated. According to the Institute for Health Metrics and Evaluation, HIV/AIDS has been the leading cause of death in South Africa for over twenty years (2017). HIV currently accounts for 31.25% of total DALYs, with 1 in 5 South Africans aged 15 - 49 positive for the disease ("South Africa," 2018). Compared to Algeria, which has a similar population size and GDP, HIV adult prevalence in South Africa is over 200 times higher ("Algeria," 2016). In fact,

South Africa has the highest number of people living with HIV across the entire globe ("The Global HIV/AIDS Epidemic," 2019). Other high-impact communicable diseases include neonatal disorders (4.56% of DALYs), lower respiratory tract infections (3.96% of DALYs), and tuberculosis (3.19% of DALYs) (IHME, 2017). Of course, the persistence of TB in South Africa is largely due to its comorbidity with HIV.

The other leading causes of DALYs come from noncommunicable diseases and injuries: cardiovascular disease (7%), cancer (5.3%), self-harm and violence (4.94%), and diabetes (4.73%) (IHME, 2017). The triple burden of communicable and noncommunicable diseases is made more complicated by its distribution: while noncommunicable diseases make up 80% of deaths among white South Africans, they only account for 37% of deaths among black South Africans (Pillay-van Wyk V, 2016). Given South Africa's history of preferential treatment for whites, these disparities pose complicated questions when determining health priorities.

Regardless, South Africa's Constitution specifically states that the government has a responsibility to "heal the divisions of the past and establish a society based on democratic values, social justice and fundamental human rights," as well as guarantee its citizens access to healthcare services ("The Constitution of the Republic of South Africa", 1996). To realize these rights, the South African government established a national health system to govern both public and private health services in 2004. Under this system, South Africa citizens have access to both private and public services, but private services are limited to those who can afford them. Very few can; only 16 percent of the population utilize the private sector while 84 percent primarily use public services (Mahltathi and Dlamini, 2015).

The public health care system is structured such that patients receive primary care through the District Health System. In each of South Africa's nine provinces, the local

Department of Health is responsible for hiring public staff. The National Ministry of Health is the overall governing body of the health system and creates policy for development and coordination of services (Mahltathi and Dlamini, 2015). Payment in the public and private sectors are determined by the Uniform Patient Fee Schedule (UPFS). There are three categories that patients can fall into: fully paying patients, fully subsidized patients, and partially subsidized patients. Fully paying patients include those who seek treatment through the private sector or are not South African citizens. Fully subsidized patients receive services free of charge, while partially subsidized patients are responsible for some costs depending on their income (National Department of Health, 2009). In total, South Africa spent 8.11 percent of its GDP on health care in 2016 (World Bank, 2016).

Unfortunately, the health system is beleaguered by understaffing and overcrowding. There are currently just 0.9 physicians per 1,000 people. For comparison, Algeria has 1.8 physicians per 1000 people and spends a similar percentage of GDP on health care (World Bank, 2017). This issue is made worse by the steady emigration of South African trained health care professionals to other countries, a phenomenon entitled “Brain Drain” (Mahltathi and Dlamini, 2015). Furthermore, although South Africa guarantees health care to its citizens as a human right and has worked towards creating a system that would allow for this, there remain significant disparities in access to care, largely as a consequence of apartheid polices. The wealthy white minority primarily enjoys the higher quality care of the private sector, while the poorer non-white majority can only access the underfunded, understaffed, and overcrowded public sector services (Moyo, 2016).

Given that the South African HIV/AIDS crisis is the most severe in the world, it is justifiably a major priority for its health system. South Africa has the largest antiretroviral

treatment (ART) program in the world and was the first country in Sub-Saharan Africa to fully approve PrEP. South Africa's ART program treats 4.4 million people, which is about 61% of the people living with HIV in South Africa (HIV and AIDs in South Africa, n.d.). The success of ART programs in South Africa are evident, as it is largely responsible for the increase in life expectancy observed since 2010. Going forward, the South African health system aims to increase treatment. The country has committed to reaching the 90-90-90 targets set forth by UNAIDS, in which 90% of people aware of their HIV status, of which 90% are on HIV treatment, of which 90% are virally suppressed (UNAIDS, 2019). To reach this goal, the South African government drafted the National Strategic Plan (2017 - 2022), which outlines a plan to provide treatment and promote prevention in severely-impacted geographic areas as well as among vulnerable populations, such as female sex workers (The South African National Aids Council, 2018).

Other health priorities are outlined in South Africa's National Development Plan. By 2030, the country aims to raise life expectancy to 70 years, improve TB prevention and cure, reduce maternal, infant, and child mortality, reduce non-communicable diseases, reduce injury and violence by 50 percent, and increase primary care coverage (National Development Plan, 2013). The country also endeavors to complete broad health system reform and achieve universal health care coverage in an effort to address the systemic inequalities leftover from the apartheid era.

One of the most ambitious proposed reforms is the National Health Insurance (NHI) program, which is currently being debated in the South African parliament. The NHI program would allow patients to receive care free of charge at private practices, clinics, and hospitals, and it would be funded primarily through taxes (Government of South Africa, 2012). Proponents of

the bill believe it will address the difference in quality of care experienced by the wealthy and the poor. However, there is much concern over funding sources. Many citizens believe that it will cause the country to go into debt, fail to be executed properly due to lack of funding, and therefore fail to bring equity to healthcare in South Africa (Steenkamp, 2019). Paying for such an expensive program is made more complicated by the economic recession that hit South Africa in 2018, as well as mounting concerns over a growing public debt.

Unfortunately, South Africa's economic trends regarding poverty and wealth inequality are concerning. Wealth inequality is increasing with richer households having 10 times more wealth than poorer households. The labor market is not improving and there are increasing wage gap inequalities, characterized by two extremes: a small portion of highly skilled, well paid jobs and the larger portion of informal, low wage jobs. Skilled worker wages are increasing while the few semi-skilled worker wages are decreasing leading to a gap in the workforce for semi-skilled workers (Sulla and Zikhali, 2018). While the labor market is exhibiting a lack of improvement, poverty rates in South Africa have been reduced over the past two decades. Between 2006 and 2015, 2.3 million South Africans were lifted out of poverty. However, between 2011 and 2015, poverty rates actually began increasing, likely tied to rising unemployment (Sulla and Zikhali, 2018).

In regards to health trends, South Africa has made significant progress in increasing access to HIV/AIDS treatment. In 2016, the government approved a policy to provide antiretroviral treatments for everyone affected by HIV. Due to this increased coverage, HIV/AIDS related deaths have been falling at a rate of 17% each year and is expected to continue falling in the future with increased ART coverage and a focus on prevention (Williams et al., 2017). However, noncommunicable diseases are on the rise, especially in rural

communities. In fact, the WHO has projected that noncommunicable diseases will be responsible for the majority of deaths in South Africa by 2030. This trend is reflected in the increased number of deaths from diabetes, kidney disease, and cancer (Mayosi, 2009, 759-760). As the HIV/AIDS crisis may be coming under control, the South African health system must prepare to address the growing prevalence of noncommunicable diseases. Reforms are even more necessary when viewed in light of the growing number of physicians that have left the public sector. The percentage of total physicians working in the private sector rose from 40% to 70% between 1980 and 2007. There are also continuing disparities in rural areas: only 19% and 12% of South African physicians and nurses, respectively, are accessible to rural communities (Rawat, 2015).

In light of these trends, we recommend strengthening primary health care, particularly in rural areas. Such systems are essential to address the rising prevalence of noncommunicable diseases. Preventative measures, such as tobacco control and food regulation, are also needed. Furthermore, a strong primary health care system requires a strong health care workforce. We recommend policies that would encourage South African-trained health professionals to stay in the country, such as increased pay, as well as programs that would welcome immigrant and refugee physicians. In general, increased funding for health services in South Africa will likely create improved working conditions, which will attract more health professionals.

One of the largest detriments to social, economic, and physical well-being in South Africa is poverty and slow economic growth. Thus, we recommend implementing policies aimed towards accelerating GDP growth, as long as it is not to the detriment of occupational and environmental health. Sectors such as telecommunication, agriculture, and tourism would benefit from support investment, which could increase South Africa's GDP by 2% by 2030 (Sulla and Zikhali, 2018). This would have the dual benefit of providing more employment as well as

increasing taxable income to fund the proposed NHI program. Unemployment can also be addressed by improving education and job training, as well as providing free and frequent transportation from rural areas into city centers. To address rampant inequality, a wealth tax may help redistribute assets more fairly among the population.

South Africa remains burdened by its history of racial segregation and marginalization, which is reflected in the health and wealth disparities prevalent throughout the country. Although the government is committed to addressing these disparities, ongoing economic and epidemiological forces have made rectifying the errors of the past more difficult. As the HIV/AIDS crisis becomes more controlled, the South African health system will once again have to adjust to a rapidly changing disease population and refocus its efforts on preventive and primary care. But medical intervention is not sufficient. In order to fully realize the ideal of social, economic, and health equality in South Africa, policies must address the centuries-long disenfranchisement of black South Africans.

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Appendix

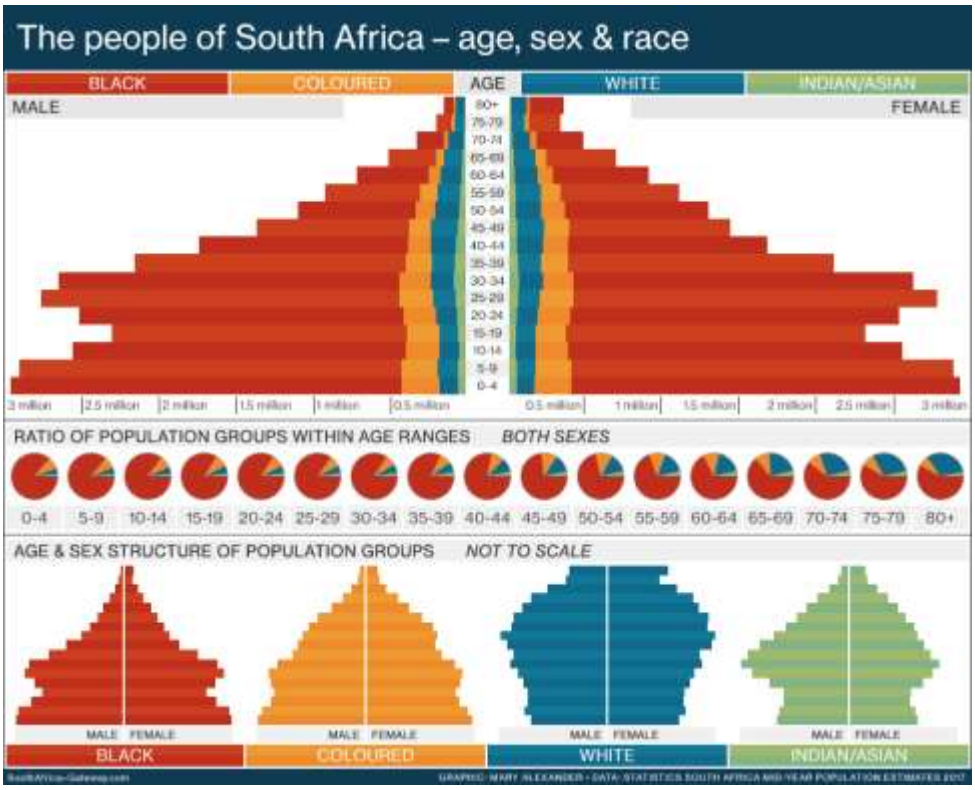

Figure 1. Population pyramid for South Africa in 2019 overall and by race

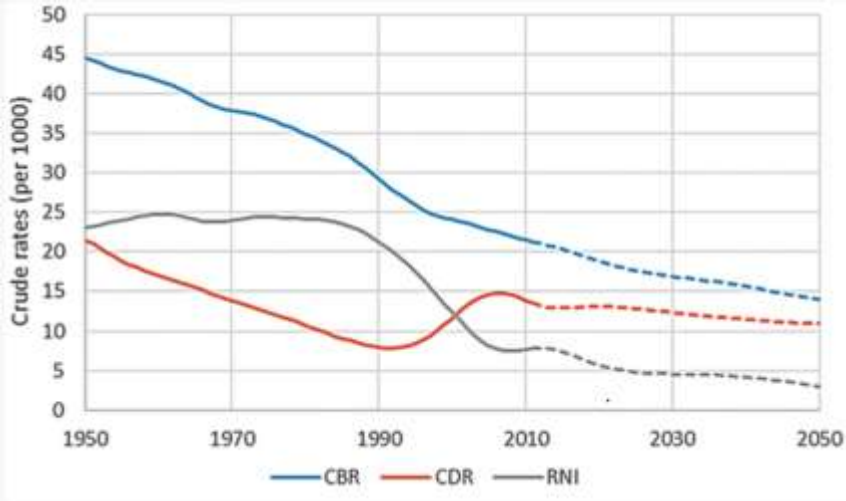

Figure 1. Crude birth rates, crude death rates, and rate of natural increase over time in South Africa

Figure 131: Projected impact of the policies on poverty and social indicators

	Food	Lower Bound	Upper Bound	US$1.9 day	Gini Coefficient	Bottom 40 share of real disposable income	Real GDP index (2016=100)	Unemployment rate	Employment rate
2017	24.7	39.8	55.5	18.6	62.8	8.6	100.0	27.3	42.1
BS1-2030	18.8	32.7	51.3	12.7	59.5	10.3	119.5	26.7	43.1
TFP1-2030	12.9	22.6	40.8	7.4	59.4	10.2	149.8	23.5	45.0
TFP2-2030	8.9	19.9	38.7	5.7	58.0	11.1	149.0	23.8	44.9

Source: Authors' calculations.

Figure 3. Projected impact of policies on poverty and social indicators