

Research paper

Racial and ethnic disparities in Latin America and the Caribbean: a literature review

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What is known on this subject

- Race and ethnicity are complex issues in Latin America and the Caribbean. Most of the 540 million residents are descended from three major racial/ethnic groups, namely indigenous peoples, Europeans and Africans.
- Indigenous and Afro-descendant groups in Latin America and the Caribbean experience dramatic differences in health status and access to health services.
- The health disparities that affect these population groups are the result of complex dynamics between social exclusion, poverty and adverse environmental factors, as well as cultural and behavioural factors.

What this paper adds

- The causes of racial and ethnic differences in health should be addressed in the context of the even larger socio-economic disparities observed among these population groups.
- The need to overcome the cultural barriers that limit access to health services is a key factor in developing the most effective policies to reduce health inequalities.
- Given the relationships between socio-occupational mobility, better income and better health, education is the primary mechanism for overcoming intergenerational poverty reproduction and reducing the health differentials that affect Afro-descendant and indigenous groups in Latin America and the Caribbean.

ABSTRACT

This paper presents a review of the literature on ethnic and racial disparities in health in Latin America and the Caribbean. It begins by describing the concepts of *race*, *ethnicity* and *indigeneity*, and provides demographic estimates of indigenous and Afro-descendant populations in the region. It then presents a discussion of the possible causes of racial and ethnic differences in health, and how these should be interpreted in the context of the even

larger socio-economic disparities that are observed among the population groups concerned. The paper concludes by focusing on the opportunities and challenges for reducing ethnic and racial inequalities in health in Latin America and the Caribbean.

Keywords: ethnicity, health inequalities, Latin America and the Caribbean, race

Introduction

Indigenous populations in Latin America and the Caribbean (LAC) represent around 11% and Afro-descendants more than 20% of the total population; white people represent less than 40%. The health of

people in the LAC region has improved markedly over time. Average life expectancy at birth has increased from 68.8 years in 1995 to 72.5 years in 2006 (Pan American Health Organization, 2007). Control of

many serious diseases and the elimination of some of them have been observed. Yet indigenous and Afro-descendant groups in the LAC region continue to experience dramatic differences in health status and access to health services. An increasing number of studies have shown multiple differences between racial and ethnic groups with regard to patterns of disease, health status, and access to and use of health services (Montenegro and Stephens, 2006).

Differences between indigenous, Afro-descendant and other populations in the LAC region persist in several areas besides health, such as employment, income, education and housing. It is now generally agreed that the health disparities that affect these population groups are the result of complex dynamics between social exclusion, poverty and adverse environmental factors, as well as cultural and behavioural factors. Differences in health are only one dimension of deep socio-economic and cultural diversity (Bello and Rangel, 2000, 2002).

The inclusion of *race* and *ethnicity* in health research has a long history (LaVeist, 1994). The most common use of race and ethnicity in applied health research is as a binary (dummy) variable that is utilised as a control in regression analysis. However, race and ethnicity are often conceptualised as a proxy for other, unmeasured variables, such as socio-economic status, discrimination, cultural factors and unspecified biological differences that are known or believed to correlate with race. Therefore, if race and ethnicity are proxies for other factors such as biology or culture, it is necessary to find more creative ways of measuring these other factors in order to elucidate the different patterns of diseases that are observed among population groups and, more importantly, of explaining the differences in access to, utilisation and impact of health services.

This paper presents a review of the literature on ethnic and racial disparities in health in LAC. It begins by describing the concepts of race, ethnicity and indigeneity, and provides demographic estimates of indigenous and Afro-descendant populations in the LAC region. This is followed by a discussion about the possible causes of racial and ethnic differences in health and how these should be interpreted in the context of the even larger socio-economic disparities. The paper concludes by focusing on the opportunities and challenges for reducing ethnic and racial inequalities in health in the LAC region.

Race, ethnicity and health

Race and ethnicity are complex issues in LAC. Most of the 540 million residents are descended from three major racial/ethnic groups, namely indigenous peoples (of whom there are around 400 distinct groups),

Europeans (largely of Spanish and Portuguese heritage) and Africans (descendants of slaves brought to the region during the colonial era). The term *mestizo* generally refers to people of mixed European and indigenous lineage, whereas the term *mulatto* refers to people of mixed African and European background (Wade, 1997). After centuries of racial mixing, there are numerous racial variations in Latin America, and many people of mixed African, European and indigenous ancestries coexist.

The biological concept of *race*, according to which human populations are divided into subspecies mainly on the basis of biological and visible physical characteristics, was developed in the context of slavery and imperial colonialism. Race functioned not only to classify human variation, but also to justify the exploitation of groups that had been defined as inferior (Montagu, 1965). The biological concept of race has been challenged as ill defined, poorly understood and invalid. Human races are not biologically distinct, as there is more genetic variation within them than between them, and racial categories do not capture biological distinctiveness (Braun, 2002). The modern concept of race emphasises its social origins rather than its biological basis (Kaplan and Bennett, 2003). In other words, the fact that we know what race we belong to tells us more about our society than about our genetic make-up. Racial taxonomies are arbitrary, and race is more of a social than a biological category.

The word *ethnicity* is derived from the Greek word *ethnos*, meaning a nation (Bhopal, 2004). Ethnicity is a multi-faceted quality that refers to the group to which people belong, or to which they are perceived to belong, as a result of certain shared characteristics, including geographical and ancestral origins, particularly cultural traditions and languages. The characteristics that define ethnicity are not fixed or easily measured, so ethnicity is imprecise and fluid. Although race and ethnicity are different, they are overlapping concepts that are often used synonymously (Bhopal, 2004).

The concept of *indigeneity* is also complex and has varying definitions. Indigenous people are the original inhabitants of an area, the descendants of the original inhabitants who were colonised, those living in an indigenous way and who are accepted by the indigenous community. Indigenous people could also be those who are successful in maintaining ancestral behaviours over specific territories with or without traditional lands (Delgado, 2003).

To summarise, the concepts of *race*, *ethnicity* and *indigeneity* are not primarily biological concepts, but rather complex definitions, which involve social and cultural factors as well as behaviours and beliefs.

Indigenous and Afro-descendant populations in LAC

To understand current distributions of indigenous and Afro-descendant populations in the LAC region, we need to understand their demographic histories. In Latin America and the Caribbean there are two clearly defined periods, before and after the European invasion of the late 15th and early 16th centuries. Estimates of the total indigenous population at the time of Columbus range from 30 to 60 million (Durand, 1977). Indigenous groups had different social structures. Complex imperial cultures such as the Inca, Maya or Aztec exercised their political and military influence over growing territories, with large urban populations. On the other hand, semi-nomadic hunter-gatherer groups maintained a less permanent control over their territories and lived in smaller communities (Denevan, 1976).

European invasions rapidly and drastically changed the pre-Columbian mix of people, cultures and populations. Indigenous populations were considerably reduced throughout the region by the combined effects of the armed invasions of the Europeans and epidemic diseases, such as smallpox, influenza, yellow fever and typhus. By the year 1750, the estimated total population in the region had dropped to around 11 to 18 million (Durand, 1967). Some demographic recovery seems to have taken place in the late twentieth century. In 1960, the total indigenous population of LAC was estimated to be 1.4 million, whereas by 2003 it was more than 40 million (Azevedo, 2006). However, the development of self-definition as a criterion for defining indigeneity could be responsible for some of the apparent recovery of population numbers (Joralemon, 1982; Ramenofsky, 1993).

The majority of Afro-descendants in LAC are descended from the millions of slaves who were brought by European traders from the West African coast. The first slaves arrived in Hispaniola Island in the early 16th century. An estimated 12 million Africans followed them during the 400-year history of the slave trade. More than 50% ended up in Brazil, and 5% went to the USA (Berlin, 2003). Although many Africans perished due to harsh working conditions and diseases, new slaves from West Africa continued to replace them until abolition occurred. Slavery was abolished in most Latin American countries at or soon after their independence from Spain in the 1820s, but continued in Brazil until 1888 (Kiple, 1984; Postma, 2003).

Slavery and lingering racism have left an indelible mark on Afro-Latinos, as has the long but little-known legacy of black rebellion and *marronage*, self-liberation. The first slave rebellions occurred in Puerto Rico (in 1514) and Hispaniola (in 1522) (Ribaldo, 2004). By

the 17th century there were between 11 000 and 30 000 *maroons*, escaped slaves, who formed communities with sovereign territoriality in remote terrains with low population densities that now constitute the prominent Afro-Latino areas of eastern and northern South America, Central America and the Caribbean (Price, 1996). The result is a particularly mixed population. For example, a study that analysed mitochondrial DNA in a representative sample of the Puerto Rico population revealed that maternal ancestries are 61.3% Amerindian, 27.2% sub-Saharan African and 11.5% western Eurasian (Martinez-Cruzado *et al*, 2005). For a comprehensive history of the African diaspora in the Americas, see Whitten and Torres (1998).

Races and ethnic groups in LAC

Current demographic estimates of the indigenous and Afro-descendant populations in LAC vary, and depend on how indigeneity and race are defined and measured. The first difficulty is that not all LAC population censuses identify indigenous and Afro-descendant populations. Secondly, censuses that attempt to identify these populations use different questions, making comparisons and aggregations difficult (Yashar, 2004). Despite these limitations, the number of Afro-descendants, black and *mulatto*, is estimated to be more than 127 million, representing 21.9% of the total population. Indigenous populations account for more than 62 million (11% of the total population) and *mestizos* about 151 million (26%; see Table 1).

Health differentials in indigenous and Afro-descendant populations

Data on the health of indigenous and Afro-descendant populations in LAC are scattered. The availability of health data is affected by the geographical isolation of some indigenous groups. In some cases, information is obtained only when an epidemic has started and health professionals arrive and begin to treat patients. Indigenous health information is also affected by the nature of being a community within a nation state, and by the movement of individuals and families between rural and urban areas. In addition, some indigenous communities live across national boundaries, creating challenges for data collection.

Table 2 summarises the information on health inequalities related to race and ethnicity that is available for Latin American and Caribbean countries. It distinguishes between differences in health status, access to health services and quality of health services

Table 1 Afro-descendant and indigenous populations in the 26 Inter-American Development Bank member countries

Country	Total population (July 2006 estimates)	Indigenous populations	Afro-descendant populations	Indigenous populations (%)	Afro-descendant populations (%)
Argentina	39 921 833	391 000	–	1.0	-
Bahamas	303 770	–	259 000	–	85.3
Barbados	279 912	–	252 000	–	90.0
Belize	287 730	48 000	89 000	16.7	30.9
Bolivia	8 989 046	4 943 975	2 000	55.0	0.0
Brazil	188 078 227	332 000	84 070 967	0.2	44.7
Chile	16 134 219	484 027	–	3.0	–
Colombia	43 593 035	653 896	7 846 746	1.5	18.0
Costa Rica	4 075 261	40 753	122 258	1.0	3.0
Dominican Republic	9 183 984	–	4 132 793	–	45.0
Ecuador	13 547 510	3 386 878	406 425	25.0	3.0
El Salvador	6 822 378	68 224	–	1.0	–
Guatemala	12 293 545	4 978 886	–	40.5	–
Guyana	767 245	69 113	226 869	9.0	29.6
Haiti	8 308 504	–	7 893 079	–	95.0
Honduras	7 326 496	512 855	146 530	7.0	2.0
Jamaica	2 758 124	–	2 507 135	–	90.9
Mexico	107 449 525	12 700 000	-	11.8	–
Nicaragua	5 570 129	278 506	501 312	5.0	9.0
Panama	3 191 319	191 479	478 698	6.0	15.0
Paraguay	5 884 000	157 000	-	2.7	–
Peru	28 302 603	12 736 171	1 471 735	45.0	5.2
Suriname	439 117	25 000	180 038	5.7	41.0
Trinidad & Tobago	1 065 842	–	400 000	–	37.5
Uruguay	3 431 932	1 000	137 277	0	4.0
Venezuela	25 730 435	514 609	2 573 044	2.0	10.0
Total	543 735 721	42 513 370	113 696 906	7.8	20.9

Source: Central Intelligence Agency (2010).

Table 2 Racial and ethnic disparities in health in Latin America and the Caribbean

Country	Health status	Use of health services	Coverage and quality of health services
Belize		In Toledo and parts of Stann Creek, where most indigenous people live, access to healthcare is of concern (Pan American Health Organization, 2007)	
Bolivia	Child chronic malnutrition was 50.5%, compared with 23.7% in non-indigenous communities (Larrea and Freire, 2002)	Institutional delivery: 30% for indigenous vs. 55% for non-indigenous communities (Valenzuela, 2004)	Health insurance coverage: indigenous, 12%; non-indigenous, 19% (Hall and Patrinos, 2005)
Brazil	In the year 2000, life expectancy at birth was 71 years, whereas for Afro-descendants it was 65.7 years (Borges Martins, 2004). AIDS mortality rate for Afro-descendants is 50% higher than for white people (Pan American Health Organization, 2007). A sample of postpartum women seen in public maternity hospitals showed a persistent unfavourable situation for <i>mulatto</i> and black women compared with white women, i.e. highest rates of adolescent pregnancy, physical violence, smoking, and attempts to terminate pregnancy (Leal <i>et al</i> , 2005)	Afro-descendant women seek care in more than one hospital before being admitted (31.8% vs. 18.5%) (Leal <i>et al</i> , 2005)	Afro-descendant women were less likely to receive anaesthesia during delivery (13.5% vs. 21.8%), and were less likely to use private healthcare providers (considered to be of higher quality) (11.6% vs. 43.7%) (Leal <i>et al</i> 2005)
Chile	National infant mortality was 17.1 per 1000 live births, compared with 20.6 in indigenous communities (Pan American Health Organization, 1998)		
Ecuador	Child chronic malnutrition was 58.2%, compared with 24.2% in non-indigenous communities (Larrea and Freire, 2002). The mortality rate of all sons and daughters born alive is 10.5% for indigenous mothers, compared with 5.1% for non-indigenous mothers (Hall and Patrinos, 2005)	Deliveries assisted by a professional healthcare provider: 33% for indigenous vs. 82% for non-indigenous communities. About 36% of indigenous mothers report having no prenatal check-up at all during their last pregnancy, compared with 12% of non-indigenous mothers (Hall and Patrinos, 2005)	Indigenous families depend more on healthcare delivered by public health centres or sub-centres, and have lower rates of health insurance coverage than non-indigenous families (Hall and Patrinos, 2005)

Table 2 Continued

Country	Health status	Use of health services	Coverage and quality of health services
Guatemala	Child chronic malnutrition in indigenous communities is 34%, compared with 11.1% in non-indigenous communities (Adams, 2005)	Prenatal care: 63% of indigenous women vs. 82% of non-indigenous women. Institutional births: 15% of indigenous women vs. 51% of non-indigenous women. Contraceptive method: 32% of indigenous women have knowledge of this and 12% use it vs. 71% and 57%, respectively, of non-indigenous women (Hall and Patrinos, 2005)	Health insurance coverage: indigenous, 5%; non-indigenous, 18% (Hall and Patrinos, 2005)
Honduras	National maternal mortality rate: nation level 147 per 100 000 live births. In the departments of Colón, Copán, Intibucá, Lempira and La Paz, with large indigenous populations, between 255 and 190 per 100 000 live births (Pan American Health Organization, 1998). Life expectancy at birth: 36 years for indigenous men, compared with 65 years for all men; 43 years for indigenous women, compared with 70 years for all women (Pan American Health Organization, 1998). HIV prevalence rate: 7.8% among Garifuna's population, compared with 0.8% for national average (World Bank, 2002)		
Mexico	Child chronic malnutrition: 44% for indigenous communities, compared with 14% for non-indigenous (Hall and Patrinos, 2005). Infant mortality for the year 2000: 38.5 per 1000 live births for indigenous communities, compared with 24.9 for non-indigenous (CONAPO, 2001). Child mortality for the year 1997: 120 per 1000 live births for indigenous communities, compared with 59 at national	Medical consultations: (i) among children aged 0–17 years, indigenous patients use 14% less services than non-indigenous patients; (ii) among adults, indigenous patients use 18.6% less services than non-indigenous patients. Hospital services: indigenous populations use 65.7% less services than non-indigenous populations (Paqueo and Gonzalez, 2003)	Health insurance coverage: indigenous, 17%; non-indigenous, 43% (Hall and Patrinos, 2005)

Table 2 Continued

	level (Pan American Health Organization, 2002). In the year 2000, life expectancy at birth was 74 years, whereas for indigenous communities it was 69 years (Pan American Health Organization, 2002)		
Nicaragua	Municipalities affected by <i>Plasmodium falciparum</i> are in the Autonomous Atlantic Coast Regions of the country, an area of indigenous and Afro-descendant population settlements (Pan American Health Organization, 2002)		
Peru	Child chronic malnutrition 47%, compared with 22.5% in non-indigenous communities (Larrea and Freire, 2002). Infant mortality was 169 per 1000 live births, compared with 269 for indigenous populations (Pan American Health Organization, 1998)	Deliveries assisted by a professional healthcare provider: 30.7% of Aymara speakers; 53.3% of Quechua speakers; 73.4% of Spanish speakers (ENDES 2004-05). Access to medicine in the event of illness: 57% of indigenous population, compared with 81% of non-indigenous population (Pshcaropoulos and Patrinos, 1994)	Health insurance coverage: indigenous, 41%; non-indigenous, 47% (Hall and Patrinos, 2005)

used, to capture the different dimensions of health inequalities. Even if it is not possible to provide information for every country in the region, it is clear that there is a pending debt towards indigenous peoples and Afro-descendant populations in all three dimensions.

Why do health disparities exist?

At both individual and community levels, the various factors that affect health status are referred to as the *determinants of health* (Evans *et al*, 1994) or as *health inputs* into the production of health (Grossman, 1972). Much is known about these factors and how they affect the health of populations. They include genetics, where people live, the state of the physical environment, income, educational level, relationships with friends and family, and access to, use of and quality of healthcare services (Kindig and Stoddart, 2003). The distribution of these factors varies widely

between population groups. Thus inequalities in the distribution of health determinants may explain differences in health between population groups. This section outlines the extensive research that has investigated these factors in relation to the LAC region.

Genetics

Inheritance plays an important part in determining lifespan, healthiness and the likelihood of developing certain illnesses. Research into racial variation in health has been dominated by a genetic model that views race as primarily reflecting biological homogeneity, and indigenous–black–white differences in health as being largely genetically determined. The genetic model of racial differences in health was based on three assumptions, namely that race is a valid biological category, that the genes that determine race are linked to those that determine health, and that the health of a population is largely determined by the biological constitution of that population. In retrospect, the biological concept of race was ill defined, poorly

understood and invalid, as human races are not and never were pure (Braun, 2002). In addition, research within the biological sciences has provided strong evidence that broad groupings of the population into races explain little in terms of the overall genetic variation that occurs in human beings. For example, Lewontin (1972) showed that over 85% of the observed genetic variation (using internal proteins as markers of genetic variability) occurred within racial groups, only 6.3% of variability occurred between racial groups, and approximately 8.3% of variability occurred between ethnic groups within a race. Even if some diseases are hereditary, the constant interaction between genes and the environment means that it is difficult to disentangle genetic factors from environmental ones. If racial and ethnic groups do not represent distinct gene pools, genetic explanations for health inequities provide little or no information.

An emphasis on biological sources of variation in health can serve important ideological functions. If it is believed that racial or ethnic differences in health result from innate biological differences, then societal structures and policies determining poor health are absolved from responsibility, leaving little room for interventions that can be effective in reducing health differentials (Williams *et al*, 1994). However, a more comprehensive conceptualisation, that includes environmental, social and behavioural factors among the elements that affect health, provides for effective health politics both at the social level (through improving health services quality, environment and occupational safety) and at the individual level (e.g. by reducing smoking, drug and alcohol use, and teenage pregnancies).

Environmental factors

Safe water and clean air, healthy workplaces, and safe houses, communities and roads all contribute to good health. Many indigenous populations in LAC still live in isolated environments where conditions are harsh. People living within natural ecosystems are exposed to many health hazards, produced mostly by their difficult environment. In the past, health risks were linked to basic access to food, water and shelter and, in many contexts, to risks from predators. Now resource exploitation can affect health through environmental contamination or social contact with workers in mining and exploration projects.

Diseases from acculturation and encountering

Support from family, friends and communities is linked to better health. Culture, customs and traditions, as well as the beliefs of the family and community, all

affect health. European invaders brought new diseases that were particularly lethal for communities living in warm lowlands, and Western diseases continue to spread among indigenous communities. Indigenous communities that live near urban areas or have regular contact with mining and forestry workers, particularly the wildcat gold diggers known as *garimpeiros*, are highly likely to contract some form of sexually transmitted disease. Thus HIV/AIDS may have the same effect on indigenous peoples as the original epidemics that were brought by the conquistadores (McKenna, 1993). Indigenous communities that are more integrated into mainstream society are vulnerable to alcoholism, drug use and domestic violence (Seale *et al*, 2002). It is thought that the maintenance of traditional culture is a protective factor, especially for problems related to nutrition and the transition from a nomadic life to a sedentary urban one (Hollenberg *et al*, 1997). Finally, social and political violence is a reality for many indigenous and Afro-descendant communities in Latin America, resulting in death, exile and mental health problems.

Poverty

One unifying feature of indigenous and Afro-descendant groups in LAC is that of poverty (Renshaw and Gras, 2004; see Figure 1). The historical factors that explain the poverty of these populations include the progressive loss of land entitlements for indigenous communities, the break-up of community economies, reduced access to educational and healthcare services, and low levels of employment. Indigenous people and Afro-descendant populations earn lower wages compared with the rest of the population, and are more likely to work in the economy's informal sector without social protection. The incidence of extreme poverty among indigenous and Afro-descendant individuals is much higher than in the rest of the population, ranging from 1.6 times higher (in Colombia) to 7.9 times higher (in Paraguay), and excluding Costa Rica and Haiti, where the ethnic mix does not seem to imply any difference in the levels of indigence.

Research focusing on individuals has found a very robust relationship between an adult individual's income and their health, using a range of measures for both. Regardless of how measures of health status and of poverty are combined, there is little doubt that poverty leads to ill health (Pritchett and Summers, 1996; Benzeval and Judge, 2001; Mullahy *et al*, 2001). Some research from the USA suggests that the cost of care is an important consideration in clinical decision making for ethnic-minority groups (Mayberry *et al*, 2000).

Further important conclusions from this body of literature include the following:

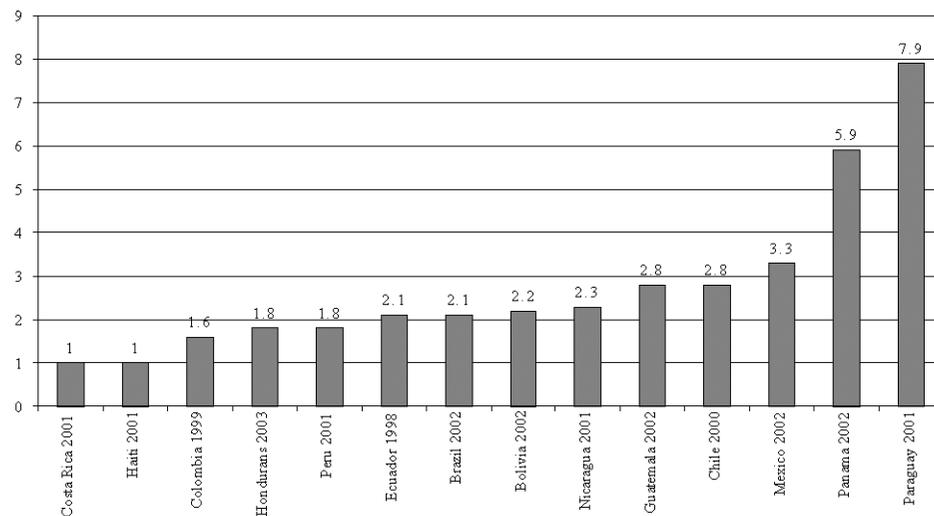


Figure 1 Incidence of extreme poverty in indigenous and Afro-descendant populations compared with incidence in the rest of the population. Source: Living Standards Measurement Survey, various years.

- The relationship between individual income and health is non-linear (i.e. the poor suffer larger negative health consequences than the rich).
- Long-term measures of average income are more strongly associated with health than measures of current income, which can be highly volatile.
- Long-term poverty has larger negative health consequences than occasional episodes of poverty.
- Both income level and income changes are significant predictors of health status, but income level is the more important of the two.
- Negative income shocks are more important for health than positive shocks.

Health services access, use and quality

Access to and appropriate use of health services to prevent and treat diseases improves individual and population health. Racial and ethnic minorities have reduced access to health services because of geographical, economic and cultural factors. Indigenous populations are often rural, dispersed, and in some cases nomadic or located in areas that are geographically difficult to access. Afro-descendant populations are often located in marginalised urban areas, where fewer health service providers are available.

Cultural and communication barriers, racial and ethnic prejudice and stereotypes are also important factors in effective health service delivery (Williams and Rucker, 2000). In the USA and Brazil, Afro-descendant people are less likely than white people to receive pain medication when they are hospitalised (LaVeist *et al*, 1995; Leal *et al*, 2005), but it has proved difficult to link these issues to a patent pattern of racism and racial

discrimination (Bhopal, 2004). In LAC it is likely that prejudices and stereotypes play an important role in reducing access for indigenous and Afro-descendant populations, but current evidence is inconclusive. However, studies suggest that the health services that serve indigenous and Afro-descendant populations in LAC are often culturally inappropriate (see, for example, Altamirano *et al*, 2003). Health personnel often disregard, disrespect or simply ignore traditional practices, languages and culture, creating an uncomfortable and hostile environment for these populations (Pan American Health Organization, 2001).

Policies to reduce health inequalities

Recognising the issue

The lack of attention to ethnicity and race in relation to health could be explained by the long-standing myth of racial democracy in a number of LAC countries. Affirmative action movements have only recently begun to exert pressure to address these issues (Bailey, 2004). In addition, there is a paucity of reliable and accurate information about ethnicity and race, which has limited the potential for comparing differences in health as well as other social outcomes across population groups, thereby hampering attempts to include ethnicity and race in the open political agenda. Without reliable data, baseline and target indicators, and periodic measurements, it is impossible to make political decisions to tackle discrimination and target resources to groups that endure multiple exclusions.

Therefore recognition and racial/ethnic democracy are two sides of the same coin. Becoming statistically visible is part of the process of constructing a social identity and demanding social rights (Hopenhayn, 2005).

In general, it seems to be more difficult to collect information about race than about indigeneity, as the latter allows the possibility of using proxies such as language, and the former requires self-identification, or identification by the interviewer (Mejía and Moncada, 2000). Experience of collecting information about race and ethnicity through household surveys in the region shows that the use of proxy variables such as language is not sufficient to identify indigenous groups, as belonging to an indigenous population is more complex than merely being fluent in a specific language. It is preferable to use a number of related questions on languages, such as the language learned at home and the language usually spoken, together with self-identification to identify individuals as belonging to a particular race/ethnic group. Moreover, the simultaneous use of questions on languages spoken by the parents and the language usually spoken, together with self-identification, makes it possible to analyse the loss or resurgence of languages. More recently, more subtle questions about indigeneity, such as ethnic self-identification and the use of cultural clothing, have also been used in censuses. It is considered that the use of these new variables has had the effect of increasing indigenous population estimates in LAC (Mejia and Moncada, 2000). In this context it is worth mentioning the technical assistance provided by the Inter-American Development Bank (IDB) and other international organisations, such as the World Bank and the Economic Commission for Latin America and the Caribbean (ECLAC), through the Program for the Improvement of Surveys and the Measurement of Living Conditions in Latin America and the Caribbean (known as MECOVI, from its acronym in Spanish) and other programmes of the statistical agencies of the majority of governments in the region.

Provision of health services: articulation and cultural adaptation

Effective provision of healthcare services to indigenous and Afro-descendant populations involves several challenges. The first and most readily understood challenge concerns geography. Indigenous populations have been physically segregated in rural and remote areas, whereas Afro-descendants are concentrated in peri-urban and low-income neighbourhoods. In addition, health services (both private and public) are scarce in rural and poor urban areas, where the supply of health workers is also limited because of the fear of isolation, violence and a lack of security.

The second challenge concerns cultural barriers, which can be understood as a lack of understanding between two coexisting populations that have different cultures. Health services are typically organised and offered according to modern medical criteria and methods, but the clients for whom these services are designed have different beliefs and preferences about treatment of their ailments, which originate in the ancient indigenous and African cultures. Both systems have coexisted for many years and coincide in recommendations that have a strong rational base, typical of each system, such as not lifting heavy objects, preventing the loss of blood during pregnancy, avoiding becoming upset during pregnancy or breastfeeding, and exclusive breastfeeding for newborns (Hernandez, 2006). Differences in preferences and beliefs between the two systems can create obstacles when accessing health services. For example, indigenous families perceive childbirth as a familiar and intimate act that should take place in warm and enclosed spaces. They prefer that the husband should be the only person to attend the woman in labour, and that he carries out traditional rituals related to feeding and clothing the woman, and disposing of the placenta as tradition requires. However, maternity wards have transformed childbirth into an almost public act, where several strangers provide care, and women feel strange in cold and ventilated labour rooms, barely covered by a robe, and where the placenta is simply disposed of (Camacho *et al*, 2006).

The provision of health services to indigenous and Afro-descendant populations involves a comprehensive strategy that takes into account users' needs and cultural perspectives, and that redresses years of under-funding, under-staffing and under-equipping. Progress in this regard has been irregular. In 1978, the World Health Organization asked national governments to study and progressively implement traditional medicine as an extension that would complement official medicine. This call has been repeated by the Pan American Health Organization Resolutions on the health of indigenous peoples (Pan American Health Organization, 2006), and actively implemented by several nationally and internationally supported efforts. However, much more effort is still needed to validate and systematically incorporate elements of traditional health systems into the national primary healthcare strategy and medical protocols (Puertas and Schlessler, 2001).

Addressing the socio-economic determinants of health: education, skill accumulation and poverty

In LAC, Afro-descendant and indigenous groups have systematically lagged behind the white population in

terms of educational achievement and skill accumulation over many generations. In addition, labour market discrimination and market segmentation along racial and ethnic lines have led to the restricted access of Afro-descendant and indigenous individuals to high-productivity jobs and high-growth industries. The subordinate role of descendant and indigenous groups in segmented economies such as the Latin American ones explains their persistent lower mean earnings compared with the white population (Buvinić *et al*, 2004).

Given the interrelatedness of socio-occupational mobility, better income and better health, education is considered to be the primary mechanism for overcoming the continuance of intergenerational poverty and reducing the health differentials, but the educational models that have been implemented so far have contributed to the process of cultural homogenisation and denial of indigenous and Afro-descendant cultures, rather than facilitating positive changes. Governments are aware that access to quality education with a multicultural vocation is one of the privileged levers for promoting social citizenship. The major challenges in this field involve the promotion of bilingualism and literacy as two core tools that are needed in order to achieve equality between indigenous and non-indigenous populations. The implementation of linguistic policies, and indigenous education that does not involve relinquishing ethnic identity, language or culture, is a first step towards overcoming the effects of the education models that have been applied up until now. Examples include approaches based on interculturality, multiculturalism, bilingualism and respect for cultural diversity in countries such as Bolivia, Mexico, Paraguay, Peru and Guatemala (López, 2009).

Voluntary isolation as a coping strategy

Perhaps as an extreme reaction to the health and social problems that derived from the process of acculturation and encountering, several indigenous communities of various countries in Latin America have chosen to live in voluntary isolation from mainstream societies (Napolitano and Ryan, 2007). Such isolation can profoundly affect the health conditions of these communities, both positively and negatively. Reduced life expectancy in isolation is usually accompanied by a better quality of life, so long as the community's autonomy is respected and access to their resources is secure (Shinai, 2004). However, isolation is difficult to maintain when the community lives close to resources that are valuable to mainstream society, and can only be successful if there is strong and consistent government support, especially in geographically remote or

inaccessible regions. For example, it is estimated that there are more than 40 uncontacted indigenous groups in Brazilian Amazonia and 20 indigenous groups living in isolation in Peru, the majority of them located in the Amazon region close to the border with Brazil. Indigenous groups living in isolation have also been identified in Colombia (the Aroje, living in the Río Puré National Park), in Ecuador (the Tagaeri and the Taromenani, located in the Yasuní National Park) and in Paraguay (the Ayoreo, living in the Norte del Chaco; Brackelaire, 2006). Isolation may be a protective and preventive measure against so-called *diseases of civilisation* (Azanha and Possuelo, 2004). However, it is extremely difficult to establish the overall health impact of voluntary isolation, partly because it is neither ethical nor practicable to access groups who do not wish to have contact with outsiders, and partly because of the difficulty of obtaining baseline information and constructing the counterfactual situation.

Positive discrimination

Given the significant disparities in health between indigenous and Afro-descendant populations and the rest of the population in LAC, the application of the notion of *equity* has important implications for the formulation of health policies. In the field of health, the concept of vertical equity (i.e. treating those with different health needs differently) is strictly linked to the concept of positive discrimination (Culyer, 1995; Wagstaff and van Doorslaer, 2000). The extent of health disparities among ethnic and racial groups in LAC supports the argument that traditional health policies have failed to improve equity in health and that there is a need for positive discrimination to promote equity more effectively in future (Mooney, 2004). The idea of positive discrimination and affirmative actions originated in the USA, growing out of the civil rights and social justice movements (Bergmann, 1996). With the support of Congress, explicit policies were crafted in the late 1960s and the 1970s to provide greater opportunities for minorities in employment, education, the awarding of public contracts, and political participation (Orfield, 2001). Positive discrimination and affirmative action policies are rare and recent occurrences in LAC but, as an example, the Brazilian government endorsed an affirmative action policy in 2001 that established quotas for Afro-Brazilians in government service and higher education (Htun, 2004).

The discussion about the adoption and implementation of affirmative action policies for achieving health equity among racial and ethnic groups in Latin America is incipient (Torres, 2003). In general it is possible to distinguish two groups of policies. One applies the principle of vertical equity, allocating more

health resources to those populations, such as indigenous, Afro-descendant communities, that have greater health needs (Wiseman and Jan, 2004). The other focuses on the use of quotas to facilitate the entry of indigenous and Afro-descendant individuals into the health professions, recognising that those who are admitted to the health professions through affirmative action have been found to be more likely than others to address the health needs of those indigenous and Afro-descendant communities (Ready, 2001).

Summary and conclusions

More than 127 million Afro-descendant and 62 million indigenous people live in the LAC region. Even though it is not possible to provide information for every country in the region, it is clear that both indigenous peoples and Afro-descendant populations face multiple disadvantages, including health inequalities related to race and ethnicity. Looking at the possible causes of racial and ethnic differences in health and how these should be addressed in the context of the even larger socio-economic disparities that have been observed among these population groups, the following issues emerge as being of importance to policy. Firstly, genetics, the environment, income, educational level, and access to, use and quality of healthcare services are important and inter-related issues. Secondly, the need to overcome the cultural barriers that limit access to health services is a key factor in the most effective policies for reducing health inequalities. Finally, given the relationships between socio-occupational mobility, better income and better health, education is the primary mechanism for overcoming intergenerational poverty reproduction and reducing the health differentials that affect Afro-descendant and indigenous groups in LAC.

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CONFLICTS OF INTEREST

None.

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