CHAPTER 15

ECUADOR

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INTRODUCTION

Ecuador, located in northern South America, is a relatively small but demographically and geographically diverse country. While Ecuador is classified as a middle-income country (according to World Bank rankings), there are wide social, economic, and health inequalities that the country's health and social systems struggle to address. While reading this chapter, it is important to think about the following question: Why does Ecuador, despite its wealth of social, economic, and natural resources, rank behind many other peer countries in key health and healthcare outcomes such as infectious and noncommunicable diseases?

GEOGRAPHY AND POPULATION

GEOGRAPHICAL AND CLIMATE FEATURES

Located in northwestern South America, Ecuador is bordered by Colombia to the north, Peru to the south and east, and the Pacific Ocean to the west. It is the smallest of the Andean countries, with an area of about 252,000 square kilometers (156,585 square miles). The Andes Mountain range runs from north to south, reaching altitudes of over 5,000 meters (16,404 feet; Varela & Ron, 2018). Ecuador is divided into three main regions: the Coast (Costa), the Andes (Sierra), and the Amazon (Eastern). In addition, Ecuador has an archipelago located approximately 1,000 km (600 miles) off the coast, the Galápagos Islands. Ecuador experiences relatively minor weather variations throughout the year, with only two distinct seasons: wet or winter, and dry or summer. Altitude significantly influences Ecuador's climate, with annual temperatures ranging from approximately 0°C to 26°C (32°F–79°F; Varela & Ron, 2018).

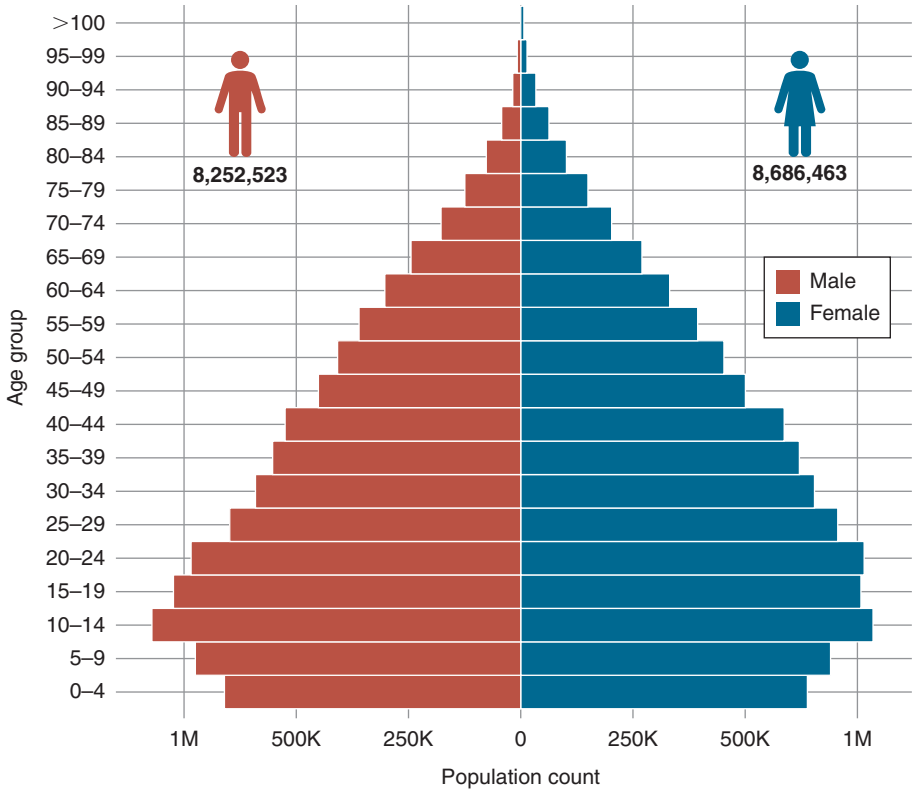
POPULATION SIZE AND MAIN CHARACTERISTICS

According to the 2022 national census (Figure 15.1), Ecuador has 16,938,986 inhabitants, with Pichincha and Guayas being the most densely populated provinces. The country has a growth rate of 1.3%; there is a ratio of 95 men to 100 women, and the median age is 29 years. The 10 to 14 year and 15 to 19 year age categories constitute the largest groups. Starting with the third most common age category (20 to 24 years), the female population is consistently larger. The country is in a phase III of demographic transition; that is, there is decrease in both mortality and birth rates which indicates the population growth is slowing down. Furthermore, 63.1% of the population live in urban areas, 77.5% identify themselves as *mestizos* (mixed European and Indigenous ancestry), followed by Indigenous (7.7%) and Afro-Ecuadorian (4.8%; National Institute of Statistics and Census [INEC], 2022a).

Birth Rates

The birth rate in 2022 was 13.9 live births per 1,000 inhabitants. The percentage of live births with low birth weight in the same year was 9.3%. There were 2.3 live births per 1,000 females age 10 to 14 years in 2022, and 47.3 live births per 1,000 adolescents age 15 to 19 in the same year. However, 50.6% of pregnancies occurred in women age 20 to 29, followed by the 30 to 34 (18.9%) and 15

FIGURE 15.1 Age distribution of the Ecuadorian population.



Source: National Institute of Statistics and Census. (2022a). *Censo Ecuador, resultados nacionales principales* [Ecuador census, main national results]. Instituto Nacional de Estadistica y Censos. https://www.censoecuador.gob.ec/

to 19 age groups (15.2%). The government also reported that in 2022, 96.7% of deliveries were attended by medical personnel, and in the private sector, 87.7% of births were by cesarean section, while in the public sector it was 36.9% (INEC, 2022b, 2023).

Migrant Populations

According to the 2022 census, Ecuador is home to 425,045 foreigners, with Venezuelans (54.5%), Colombians (23%), Spaniards (4.8%), and Peruvians (3.5%) being the most prominent. Half of the migrants are between 15 and 19 years old, and three out of four (78%) live in urban areas. The main reasons why foreigners choose to migrate to Ecuador are economic, such as dollarization and globalization, as well as access to quality healthcare and education, and the search for better living conditions. Since 2020, there has been an increase in the wave of migration, with a net migration balance above zero from 2010 to 2020 (INEC, 2022a).

Sex and Marital Status

Between 2010 and 2022, the ratio of men to women in urban and rural areas of the country declined similarly to the national level. That is, while in 2010 there were 102 men for every 100 women, in 2022 there were 98 men for every 100 women. Among the youngest age groups, the relationship is reversed compared to what was observed at the national level. That is, in the age group 0 to 19 years, the male population is in the majority (INEC Censos, 2024). Meanwhile, in the older age groups, the relationship remains the same as at the national level (more females than males), which could be explained by higher mortality or migration rates in the case of males. The marriage rate has decreased from 32.1 in 2021 to 30.8 in 2022 (compared to an increase in divorce

rates from 12.7 to 13.7 during the same period), and the average age of marriage was 32 years for women and 35 years for men in 2022. In 2022, there were 260 registered same-sex marriages, with 127 male couples and 133 female couples, and 15 divorces among same-sex couples (INEC, 2022c).

CULTURAL BELIEFS

RELIGION AND SPIRITUALITY

The Constitution guarantees the right to choose, practice, and change one's religion and prohibits discrimination based on religion. Approximately 84% of Ecuadorians have a religious affiliation, with 65% identifying as Catholic and 19% as Evangelical, while 13% have no religious affiliation (Latinobarómetro, 2024). Indigenous communities often blend traditional beliefs with Christian practices, which are recognized by the country's Constitution (Constituent Assembly of Ecuador [Asamblea Constituyente del Ecuador], 2008).

LANGUAGES

Spanish is the official language of Ecuador; however, Kichwa and Shuar are official languages for intercultural relations and other ancestral languages are officially used by Indigenous peoples (Ministerio de Relaciones Exteriores y Movilidad Humana [Ministry of Foreign Affairs and Migration of Ecuador], 2021). Most of the population speaks Spanish (98.6%), followed by 3.9% speaking an Indigenous language (with Kichwa being the most common at 85.6%; INEC, 2024).

TRADITIONS AND MAJOR CELEBRATIONS

Ecuador boasts a rich tapestry of community traditions, practices, events, and leisure activities that reflect its diverse cultural heritage. One of the most important celebrations is the Inti Raymi, a sun festival inherited from Indigenous Andean cultures that honors the sun god, Inti. This event, marked by colorful costumes, music, and dance, underscores the deep connection between people and nature. Emphasizing harmony with nature can encourage sustainable lifestyles and environmental stewardship, which contribute to long-term health. Ecuadorians also take pride in their culinary heritage, with dishes like *ceviche* and *llapingachos* showcasing the fusion of Indigenous and Spanish cuisines (González, 2017). Ecuadorian cultural traditions strengthen community and social connections, which can greatly benefit public health. *Minga*, an Indigenous-origin communal work practice where people collaborate to achieve shared goals, extends to health-related efforts such as improving school, healthcare, or potable water treatment facilities. Additionally, traditional celebrations and rituals that bring people together may provide spaces for disseminating health promotion practices. Lastly, the emphasis on intergenerational family ties in Ecuadorian culture increases physical and mental health supports for vulnerable populations, such as the older population and children.

POLITICAL SYSTEM

Ecuador is a constitutional state, organized as a republic, with an emphasis on rights, justice, and democracy. Sovereignty rests with the people and is exercised through public power and direct participation, as defined in the 2008 Constitution (Constituent Assembly of Ecuador, 2008).

BRIEF COUNTRY HISTORY

Ecuador has been inhabited by Indigenous Peoples as early as the 10th century BCE. The Incas conquered what is now Ecuador at the end of the 15th century CE. Soon thereafter, the Spanish invasion of the Inca Empire capitalized on internal crises, facilitating their conquest, colonization, and subsequent exploitation (Ayala Mora, 2008). Between 1808 and 1812, the Revolution of Quito was sparked by Napoleon's intervention in the Iberian Peninsula, which prompted

American *criollos* (those of Spanish descent) to form juntas (military rulers) to govern in the name of the legitimate monarch. Despite initial setbacks, a sovereign junta seized power in Quito on August 10, 1809, but its reign was short-lived due to insufficient popular support and defeat at the hands of Spanish armed forces. However, the independence movement, led by Simon Bolívar, was reborn in Guayaquil in 1820, spread to Cuenca, and culminated in the Battle of Pichincha in 1822, which solidified Ecuador's independence. After their victory, key figures in Quito and Cuenca favored annexation to Colombia, with Venezuela and New Granada forming Gran Colombia in 1819. Although Bolívar held the title of president, he had centralist tendencies that clashed with the liberal policies of vice-president Santander. Bolívar's efforts to establish a dictatorship faltered, resulting in the dissolution of Gran Colombia in 1830, with the southern district of Ecuador subsequently gaining independence (Ayala Mora, 2008).

HEALTH OUTCOMES

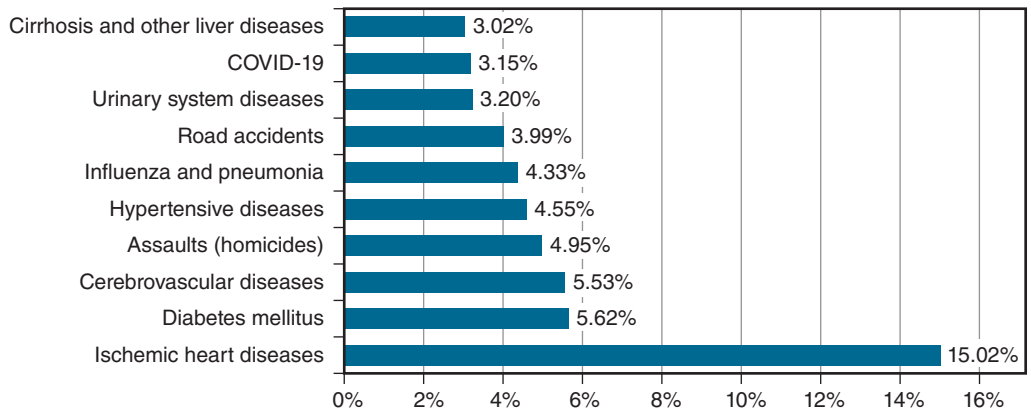
MORBIDITY AND MORTALITY

Life expectancy in Ecuador is 74.5 years for men and 80 years for women (Ministerio de Salud Pública del Ecuador [MSP], 2022). Ecuador has an overall mortality rate of 5.0 per 1,000 inhabitants. In 2022, the leading cause of death in Ecuador was ischemic heart disease (Figure 15.2), accounting for 15% of total deaths, followed by diabetes mellitus and cerebrovascular disease. Homicide also accounted for a significant proportion of deaths at 5%. Among men, heart disease and homicide were the leading causes of death, while among women, heart disease and diabetes mellitus were more prominent. It is important to note that cancer is not a leading cause of death in Ecuador (INEC, 2022d).

Infant mortality rate is 8.6 per 1,000 live births and the under-five mortality rate is 10.6 per 1,000 live births. In addition, the neonatal mortality rate was recorded at 5.4 per 1,000 live births. Maternal mortality ratio is 33.9 deaths per 100,000 live births. In 2002, among 2,855 child deaths, certain prenatal conditions account for 56%, followed by congenital malformations at 22% (INEC, 2022d). There were 155 maternal deaths in 2021, with 48.4% attributed to direct obstetric causes. Of these, gestational hypertension with significant proteinuria accounts for 17.4%, followed by postpartum hemorrhage at 6.5% (INEC, 2022d).

In 2021 and 2022, Ecuador experienced a variety of causes of morbidity, with notable shifts in the prevalence of certain conditions. The COVID-19 virus, both identified and unidentified,

FIGURE 15.2 Leading causes of death in Ecuador (2022).



Source: Ecuador National Institute of Statistics and Census. (2022). *Defunciones generales* [General deaths]. https://www.ecuadorencifras.gob.ec/documentos/web-inec/Poblacion_y_Demografia/Defunciones_Generales_2022/Principales_resultados_EDG_2022.pdf

remained a significant health concern, with reported cases decreasing from 64,491 in 2021 to 14,552 in 2022. Similarly, from 2021 to 2022, conditions such as cholelithiasis (i.e., gallstones) decreased from 41,367 to 49,223 cases and acute appendicitis from 30,014 to 29,662 cases continued to affect a significant number of people (INEC, 2022d).

MENTAL HEALTH

Ecuador has experienced a steady increase in mental health problems, such as depression and anxiety disorders. The prevalence rate of mental disorders is estimated at 14.8% of the population, with a notable increase in incidence among children and adolescents due to increasing violence and socioeconomic stressors (World Health Organization [WHO], 2020). In 2020, mood disorders (depression, dysthymia, bipolar disorder) were the leading morbidity profile, followed by anxiety disorders (anxiety, severe stress reaction, panic), paranoid schizophrenia, cognitive impairment, and substance use disorders. Emergency or hospitalization cases often involved physical or pharmacologic restraints, mainly for severe depression, schizophrenia, mental, cognitive impairment, and personality disorders (MSP, 2022).

INFECTIOUS DISEASES

As in much of the rest of the world, the COVID-19 pandemic became the most important cause of infectious disease mortality. In 2020, Ecuador had 64% more deaths than expected, with COVID accounting for 21% of total (signaling a lack of diagnostic capacity; Cuéllar et al., 2021). Other than COVID-19, lower respiratory infections compromise 3.65% of the population. Tuberculosis and HIV/AIDS represent Ecuadorian mortality at 0.37% and 0.86%, respectively (Pan American Health Organization [PAHO], 2022).

DETERMINANTS OF HEALTH

FOOD AND NUTRITION

Food insecurity in Ecuador has increased significantly in recent years, disproportionately affecting different regions and vulnerable groups. Food insecurity rates are 37.9% in the Coast, 33.9% in the Amazon, and 19.4% in the Andes. In addition, malnutrition rates in Ecuador are alarming, with 27% of children under the age of 2 years suffering from chronic malnutrition, which rises to 39% among Indigenous children. The *Food Security Report* also found that one in four people surveyed had only one meal a day (UN Office for the Coordination of Humanitarian Affairs [OCHA], 2021). Ecuador faces a double burden of malnutrition, where one in four children under 5 years of age suffers from chronic malnutrition, and at the same time more than half of the adult population is overweight or obese (INEC, 2018).

TOBACCO AND ALCOHOL CONSUMPTION

The prevalence of smoking in Ecuador is relatively low compared to global and regional estimates. In 2020, approximately 11.3% of the population smoked, with a significant gender gap: 18.4% of men and 4.2% of women. Among the population aged 12 to 18 years, 2.5% consume alcoholic beverages. In addition, 41.8% of people consume alcohol on a weekly basis, and 79.2% of them drink beer. In 2021, high alcohol consumption was associated with 670.04 disability-adjusted life sear (DALYs) per 100,000 inhabitants and tobacco consumption with 644.16 DALYs per 100,000 inhabitants (Institute for Health Metrics and Evaluation [IHME], 2024).

NONCOMMUNICABLE DISEASES

In Ecuador, approximately 65% of the population aged 19 and above are overweight or obese, a major contributing factor to noncommunicable diseases (NCDs; Fernández & Martínez, 2017).

NCDs are estimated to account for 72% of deaths. The primary causes of death from NCDs are cardiovascular conditions; ischemic heart disease and stroke account for 9.21% and 5.01% of all deaths attributed to NCDs, respectively. The third is chronic kidney disease (5.24% of all NCD deaths), with 567 patients per million population using renal replacement therapy (Torres et al., 2022) and surpassing diabetes, which is the fourth NCD-related cause of death (3.62%). Still, these statistics are an underestimation as Ecuador has limited diagnostic capacity. In fifth place, cirrhosis of the liver, which has been linked to alcohol consumption, accounts for 2.1% of all deaths attributed to NCDs.

SOCIAL DETERMINANTS OF HEALTH

Socioeconomic Conditions

Ecuador, classified as a middle-income country, has experienced fluctuations in its economic indicators. According to the Central Bank of Ecuador (BCE), gross domestic product (GDP) per capita rose from $3,178 in 1995 to $4,374 in 2014; it then fell to $4,163 in 2019 and further to $3,785 in 2020 due to the COVID-19 pandemic. There was a slight recovery to $3,892 in 2021. This economic instability is reflected in social aspects, particularly in poverty rates. While the poverty incidence decreased from 58.3% in 2001 to 21.5% in 2017, it increased to 33% in 2020 before leveling off at 27.7% in 2021. Fiscal austerity policies implemented since 2018 in the context of negotiations with the International Monetary Fund (IMF) led to a reduction in government spending, particularly on social services (Johnston & Vasic-Lalovic, 2023).

In 2024, Ecuador's unemployment rate was approximately 3.8%, a significant decline from the peak of 13.3% recorded in the second quarter of 2020 during the COVID-19 pandemic. This decline reflects a broader trend of recovery in the labor market. Historically, Ecuador's unemployment rate has averaged around 4.7% over the past decade, which is relatively low compared to the regional average for Latin America. The employment landscape in Ecuador continues to be influenced by factors such as economic growth, labor force participation, and the prevalence of informal employment, which remains a notable feature of the country's labor market (The Global Economy, 2024).

HEALTHCARE SYSTEM

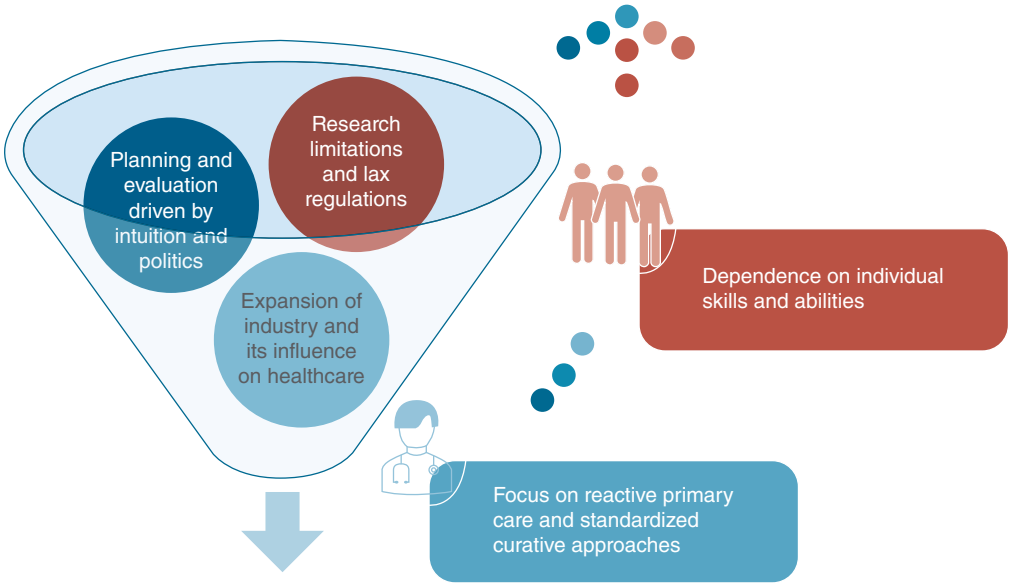
Ecuador's National Health System is based on constitutional principles that recognize healthcare as a fundamental human right. Healthcare is provided according to principles of equity, quality, and accessibility, and involves an integrated public network of government facilities, social security institutions, and other providers. Service delivery is mixed, involving government, private, autonomous, and community entities. Citizen participation in monitoring and improving the quality of healthcare is encouraged through mechanisms such as Citizens' Oversight Committees (Romero-Alvarez et al., 2024).

The biomedical health system in Ecuador (Figure 15.3) faces multiple challenges that affect the overall health and well-being of the population. The dominance of the medical–industrial complex, while strengthening tertiary care, neglects critical public health needs such as access to potable water and sanitation, particularly in rural areas, contributing to the persistence of infectious diseases and growth stunting. In addition, the prevalence of obesity is exacerbated by the growing influence of the loosely regulated processed food industry, perpetuating health inequities. A narrow focus on healthcare delivery hinders the multisectoral collaboration needed to address broader public health issues (Torres & López-Cevallos, 2017, 2018).

HEALTH INSURANCE AND HEALTHCARE DELIVERY

Ecuador's MSP leads the national health system, formulating policies and overseeing sector entities. Working with stakeholders through the National Health Council (Consejo Nacional de Salud

FIGURE 15.3 Ecuador's biomedical healthcare system.



Source: Adapted from Torres, I., & López-Cevallos, D. F. (2018). Institutional challenges to achieving health equity in Ecuador. *The Lancet Global Health, 6*(8), E832–E833. https://doi.org/10.1016/S2214-109X(18)30245-6

[CONASA]), the MSP promotes consensus on sector policies. The Organic Health Law mandates that CONASA ensures the efficient use of financial resources for universal health coverage. The MSP, along with the Ministry of Economic and Social Inclusion and municipal health services, provide healthcare to the uninsured. Social security institutions cover the employed populations (PAHO, 2022; Romero-Alvarez et al., 2023).

HEALTHCARE COSTS AND ACCESS

National health expenditures represented 6.4% of Ecuador's GDP (public expenditures were $5,626 million; private expenditures were $1,747 million in 2022). In addition, out-of-pocket household spending was 32.6%. The production of hospital activities was $2,425 million in the public sector and $1,231 million in the private sector (INEC, 2022e). In 2022, there were a total of 632 registered health facilities nationwide, including 180 in the public sector, 412 in the for-profit private sector, and 40 in the nonprofit private sector. In terms of available hospital beds, there were 14,017 in the public sector and 9,378 in the private sector, for a ratio of 1.3 hospital beds per 1,000 inhabitants. In addition, a total of 1,843 intensive care unit (ICU) beds were reported in both public and private health facilities in the same year (INEC, 2022f). In 2020, the rate of doctors was 23.2 per 10,000 inhabitants, with a total of 40,587 doctors. For dentists, the rate was 3.0 per 10,000 population, accounting for 5,203 practitioners. Nurses had a rate of 15.4 per 10,000 population, comprising 27,017 individuals (INEC, 2020).

TRADITIONAL AND COMPLEMENTARY CARE

Traditional medicine in Ecuador is deeply rooted in the country's multicultural and multiethnic context. From regional associations formed by Indigenous groups to state-led initiatives, traditional healing practices coexist with formal biomedical health systems. However, the integration of traditional medicine faces challenges stemming from differences in treatment, diagnosis, and health beliefs between traditional healers and biomedical health workers. Ecuador's legal

framework, including the Health Code of 1971 and subsequent constitutional reforms in 1998 and 2008, recognize traditional medicine as an integral part of the national health system. The 2006 Organic Health Law further promotes the implementation and monitoring of traditional medicine practices and aims to bridge the gap between traditional healers and formal healthcare providers. Despite these efforts, barriers such as a lack of recognition, dialogue, and clearly defined roles persist, hindering effective collaboration within primary care teams (Bautista-Valarezo et al., 2021; Garrido, 2021).

CONCLUSION

Although there is increased recognition of the broader social, economic, and political power structures in causing health inequities, the Ecuadorian healthcare system is based on a biomedical curative system approach. While recent reforms have strengthened tertiary (hospital) care, public health demands outside of the healthcare system (e.g., lack of potable water and sanitation leading to the persistence of vector-borne diseases) remain unsolved. To address persistent systemic inequities, Ecuador's efforts should consider building a community-based system aimed at fostering communication for health promotion and prevention initiatives that tackle, rather than reinforce, systemic inequities. Policy and programmatic efforts should involve community voices in decision-making, particularly underserved, marginalized, and politically disempowered groups such as low-income, rural, and Indigenous communities, and be accompanied by independent scientific research and evaluation.

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