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# What is driving people's dissatisfaction with their own health care in 17 Latin American countries?

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## Abstract

**Background** A number of expert reports have pointed to serious problems with health care in many Latin American countries and argued the need to reform and improve health-care systems. In addition, the Ministers of Health of the Americas have stated that health systems should be accountable to citizens.

**Objective** This paper examines, in each of 17 Latin American countries, public dissatisfaction with the health care to which people have access, the proportion of people reporting problems with access to and the cost of health care and the factors that are most important in driving public dissatisfaction.

**Methods** Data are drawn from a 2007 Latinobarómetro survey of 19 212 adults interviewed face-to-face in 17 Latin American countries.

**Results** The proportion of people expressing dissatisfaction with their health care varies a great deal by country, as do the proportions reporting problems with access to and the cost of health care. Problems with access to care seem to matter most in trying to explain public dissatisfaction with their health care. More traditional measures of health outcomes and resources seem to matter less as drivers of dissatisfaction.

**Conclusions** For governments trying to improve their citizens' satisfaction with the health care they receive, the highest priority would be improving people's basic access to health-care services. Also, it appears that democratic governments are seen as being more responsive to the public's needs in health care.

## Introduction

A number of expert reports have pointed to serious problems with health care in many Latin American countries and argued the need to reform and improve health-care systems. The Ministers of Health of the Americas assembled in Panama City in June 2007 to announce a *Health Agenda for the Americas,* outlining goals for the next decade to achieve 'universality,

access, integrity, quality and inclusion of health systems that are available for individuals, families, and communities'. The *Health Agenda* also states that 'health systems should be accountable to citizens for the achievement of these conditions'.[1]

However, there have been no studies to date that have measured how satisfied citizens of Latin American countries are with the health care they receive or examined the relationship between dissatisfaction and citizens' experiences with their health care. This paper uses data from 17 Latin American countries to try to answer four questions: (i) What is the level of public dissatisfaction with the health care to which people in each of these countries have access? (ii) What proportion of people in each of these countries report having problems with access to health care and the cost of care? (iii) What factors are most important in driving public dissatisfaction? (iv) What are the implications of these findings for policy makers trying to improve the level of citizens' satisfaction with their health care?

## Data and methods

### Study design

In this study, we used 2007 Latinobarómetro survey data from 17 of the 21 countries on the continent in Central and South America: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.[2] Data were not collected in Belize, French Guiana, Guyana or Suriname.

A total of 19 212 face-to-face interviews were conducted between 7 September and 9 October 2007. Nationally representative samples of the adult population in each country were selected through multi-stage probabilistic sampling methods. Adults are defined as people age 18 or over in all of the countries except in Brazil and Nicaragua, where it is age 16 or over. About 1000 interviews were conducted in each of six of the countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama). In each of the remaining eleven countries, about 1200 respondents were interviewed. The margin of error (sampling error) ranged from $\pm 2.8$ to $\pm 3.5$ percentage points for the individual countries.[3]

Possible sources of non-sampling error include non-response bias, question wording and ordering effects and different interpretations of questions between countries. Weights for each country were created and applied to reflect the sampling probability because of multi-stage sampling designs.

Latinobarómetro is a series of public opinion surveys conducted annually in Latin American countries since 1995. Latinobarómetro Corporation, a non-profit, non-governmental organization based in Santiago, Chile, researches the development of democracy, economies and societies, using indicators of opinion, attitudes, behavior and values. Latinobarómetro surveys have been used as sources of data for journal publications on a variety of topics, including life satisfaction, crime victimization and political reform.[4–7] The 2007 data were used in this article because that year's survey contained questions having to do with citizens' satisfaction and experiences with their health care.

### Indicators

Citizens' satisfaction and experiences with their health care were measured with the following indicators.[8] First, to measure the level of dissatisfaction with health care among the public, survey respondents in each country were asked whether they were very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the health care to which they had access. The last two response categories were combined to give a measure of the percentage of people who were dissatisfied in each country.

Respondents were also asked about their experiences with access to and the cost of the health care that they needed. Regarding access to health care, a question asked whether the respondent had (i) no difficulty in access to the necessary care, (ii) some difficulty in access to

the necessary care, (iii) many difficulties in access to the necessary care and (iv) could not access the necessary care. The last two response categories were coded as those who had access problems. Also, respondents were asked whether the cost of seeing a doctor made it difficult to obtain access to medical attention the last time they had to see a doctor (0 = no, 1 = yes).

The socio-demographic status of respondents was measured with a question that asked them to locate their own positions on a 10-step staircase (1 = the poorest, 10 = the richest). In each country, the distribution was divided into quartiles. As a measure of disparities in access to health care, a percentage-point gap in reported difficulty in access to care was calculated between the lowest and highest income quartiles in each country.

In addition, respondents were asked whether they had public, private or no health insurance. The percentage reporting that they have no health insurance is used in the analysis.

In trying to explain public dissatisfaction, we also looked at three inputs into the health-care system of each country: per capita health expenditure in 2007,[9] out-of-pocket health expenditures as a percentage of total health expenditures in 2007[10] and the number of physicians per 10 000 populations,[11] using the latest figures available for each country during the period 2000–2007. In addition, we considered two outcome measures often used to evaluate the performance of health-care systems: life expectancy at birth and the infant mortality rate per 1000 live births, both using 2007 data.[11] Physician density data for three of the 17 countries (Argentina, Guatemala and Peru) were available only for years prior to 2000 and were not included in the analysis for those countries.

Finally, in trying to explain people's dissatisfaction with their own health care, we looked at three governance measures. Two were drawn from the World Bank's Worldwide Governance Indicators. Control of corruption measures the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as control of the state by elites and private interests. Overall, government effectiveness measures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation and the credibility of the government's commitment to such policies. Both of these measures were calculated on a scale from −2.5 to +2.5, with the latter being the least corrupt and the most effective.[12] The third measure, perceived level of democracy, is the mean response of the public in each country to a question asking how democratic they think their country is, where 10 means 'totally democratic' and 1 means 'not democratic'.[2]

### Analysis

Bivariate analyses were used to explain the relationship between (i) aggregate opinions expressed by respondents regarding their dissatisfaction with the health care to which they have access and (ii) other aggregate opinions expressed by respondents and country-level indicators. Pearson's correlations were calculated and tested for statistical significance to provide statistical information on each pair of measures being compared.

## Findings

### Public dissatisfaction and reported problems with health care

Public attitudes and experiences with health care in Latin America were not homogeneous. While about half of the respondents (47%) reported that they were not at all or not very satisfied with the health care to which they had access (Table 1), there were substantial variations within and across countries. In seven countries, more than half of respondents said they were dissatisfied. The level of dissatisfaction was highest in Peru (70%), Brazil (67%) and Paraguay (64%). In six countries, < 4 in 10 expressed dissatisfaction with the health care to which they had access. The level of dissatisfaction was lowest in Uruguay (31% dissatisfied), Costa Rica (34%), Venezuela (35%), and El Salvador (35%).

**Table 1** Public dissatisfaction and reported problems with health care

| | Dissatisfied with health care | | Perceived access problem | | Perceived cost problem | | Disparities in access problem | | Reported without health insurance | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Percent | Rank | Percent | Rank | Percent | Rank | Gap between lowest and highest income quartile (%) | Rank | Percent | Rank |
| Uruguay | 31 | 1 | 7 | 1 | 13 | 6 | 9 | 4 | 3 | 2 |
| Costa Rica | 34 | 2 | 10 | 2 | 9 | 1 | 3 | 1 | 11 | 4 |
| Venezuela | 35 | 3 | 15 | 4 | 14 | 7 | 11 | 5 | 42 | 8 |
| El Salvador | 35 | 4 | 37 | 15 | 22 | 10 | 25 | 15 | 62 | 11 |
| Colombia | 38 | 5 | 20 | 6 | 13 | 4 | 25 | 13 | 9 | 3 |
| Panama | 39 | 6 | 18 | 5 | 13 | 5 | 3 | 2 | 44 | 9 |
| Mexico | 41 | 7 | 21 | 7 | 27 | 14 | 18 | 9 | 35 | 7 |
| Honduras | 43 | 8 | 29 | 11 | 21 | 9 | 18 | 10 | 45 | 10 |
| Argentina | 45 | 9 | 14 | 3 | 12 | 3 | 14 | 6 | 31 | 6 |
| Nicaragua | 47 | 10 | 34 | 13 | 26 | 13 | 19 | 11 | 70 | 14 |
| Ecuador | 52 | 11 | 37 | 16 | 23 | 11 | 17 | 8 | 79 | 17 |
| Bolivia | 54 | 12 | 35 | 14 | 29 | 16 | 27 | 16 | 71 | 15 |
| Guatemala | 56 | 13 | 33 | 12 | 29 | 15 | 9 | 3 | 65 | 13 |
| Chile | 56 | 14 | 21 | 8 | 17 | 8 | 19 | 12 | 13 | 5 |
| Paraguay | 64 | 15 | 28 | 9 | 39 | 17 | 15 | 7 | 73 | 16 |
| Brazil | 67 | 16 | 40 | 17 | 9 | 2 | 25 | 14 | 2 | 1 |
| Peru | 70 | 17 | 28 | 10 | 26 | 12 | 28 | 17 | 63 | 12 |
| Mean | 47 | | 25 | | 20 | | 35 | | 42 | |
| Minimum | 31 | | 7 | | 9 | | 22 | | 2 | |
| Maximum | 70 | | 40 | | 39 | | 46 | | 79 | |

Source: Latinobarómetro 2007.[2]
Countries are arranged in the order of citizens' satisfaction: Uruguay scored highest; Peru, lowest.

Table 1 also shows access and cost problems that the public in each country reported having experienced. Again, there were large variations between countries. In six countries, one-third or more reported that they had many difficulties in access or had no access to health care. The proportion reporting access problems was highest in Brazil (40%), Ecuador (37%) and El Salvador (37%). In five countries, $<20\%$ reported access problems. Uruguay (7%), Costa Rica (10%) and Argentina (14%) were the three countries where the lowest proportion of the public reported access problems.

The proportion reporting problems in access because of cost also varied across countries. In six countries, more than one in four reported cost problems. The proportion reporting costs problems was highest in Paraguay (39%), followed by Bolivia (29%) and Guatemala (29%). In seven countries, $<15\%$ reported access problems. Costa Rica (9%), Brazil (9%) and Argentina (12%) were the three countries where the lowest proportion of the public reported cost problems.

Table 1 also shows disparities between income groups in reporting access problems. The lowest income quartile in Latin America was more likely than the highest quartile to report problems with access to health care. The degree of inequality in access varied widely across countries. In five countries, the gap between the lowest and highest income quartiles in the proportion of people reporting problems with access to health care was more than 20% points. The gap was largest in Peru (28% points) and Bolivia (27). In six countries, the gap was $<15\%$ points. Costa Rica (3% points), Panama (3) and Guatemala (9) were the three countries where

the income gap in access to health care was smallest.

The proportion of the public reporting that they have no health insurance varied widely between countries. In seven countries, half or more reported having no health insurance. The proportion was highest in Ecuador (79%), Paraguay (73%) and Bolivia (71%). In five countries, <15% reported having no health insurance, the lowest proportion being in Brazil (2%), Uruguay (3%) and Colombia (9%).

Some countries ranked highly across all five measures, while some countries performed better on one measure than on others. Uruguay and Costa Rica were among the top performers (rated sixth or higher) on all five indicators. On the other hand, El Salvador ranked the fourth in terms of satisfaction, but tenth or worse on each of the other measures. Brazil was another country that showed an inconsistent pattern. The level of dissatisfaction among Brazilians was very high in comparison to other countries in the continent (67%, ranked next-to-worst), while only 9% of respondents reported that they could not have medical attention owing to the cost of seeing of doctors (ranked second best) and only 2% reported having no health insurance (ranked best).[2]

### Public dissatisfaction with health care and health system performance indicators

Table 2 shows measures of health system performance for each country in comparison with public dissatisfaction with their own health care. Per capita health expenditure varied widely across countries, ranging from US$69 in Bolivia to US$663 in Argentina. It is notable that Chile and Brazil, second and third highest in per capita health expenditure, ranked near the bottom (fourteenth and sixteenth) in terms of satisfaction with health care.[2,9]

Out-of-pocket expenditure as a percentage of total health expenditure ranged from a low of 8% in Colombia to a high of 59% in Guatemala.[10] Some of the countries with the highest and lowest levels of public dissatisfaction with their health care have a high proportion of out-of-pocket expenditures, which suggests that this factor is not an important driver of satisfaction.

Physician density also varied a great deal across countries. In Nicaragua and Honduras, the number of doctors per 10 000 population was <10 (4 and 6, respectively). The numbers were between 11 and 20 in most countries. However, physician density was exceptionally high in Uruguay (37), which also ranked highest in satisfaction with health care.[11]

Average life expectancy at birth in Latin American countries was 74 years, with a range from 66 years in Bolivia to 79 in Costa Rica. The infant mortality rate per 1000 live births also varied widely across countries. Chile had the best indicator (8 deaths per 1000 live births), while Bolivia recorded the highest infant mortality rate (48 deaths per 1000 live births).[11]

### Public dissatisfaction with health care and governance indicators

Table 3 shows governance indictors for each country in comparison with public dissatisfaction with their own health care.[2,12] Two countries – Uruguay and Costa Rica – performed well (rated third or higher) on public satisfaction with their health care and on all three governance indicators. On the other hand, Venezuela ranked third in terms of satisfaction, but next-to-worst on control of corruption and worst on overall government effectiveness. Paraguay, which ranked third-worst in satisfaction with their health care, also ranked consistently low (fourteenth or worse) on all three governance measures. The public's perception of the level of democracy in their country seems to be an important factor in satisfaction with their health care.

### Public dissatisfaction with health care: correlations with reported health-care experiences, health system performance indicators and governance indictors

Table 4 presents the correlations between people's dissatisfaction with the health care to which they have access and other measures of

**Table 2** Public dissatisfaction with health care and health system performance indicators

| | Dissatisfied with health care[2] | | Health expenditure per capita (2007)[9] | | Out-of-pocket health expenditure: % of total expenditure on health (2007)[10] | | Physicians, per 10 000 population (2000–2007)[11] | | Life expectancy at birth, total (2007)[11] | | Infant mortality rate, per 1000 live births (2007)[11] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Percent | Rank | $ | Rank | Percent | Rank | Rate | Rank | Years | Rank | Rate | Rank |
| Uruguay | 31 | 1 | 582 | 4 | 14 | 2 | 37 | 1 | 75 | 6 | 12 | 3 |
| Costa Rica | 34 | 2 | 488 | 6 | 29 | 5 | 13 | 7 | 79 | 1 | 10 | 2 |
| Venezuela | 35 | 3 | 477 | 7 | 47 | 13 | 19 | 3 | 75 | 6 | 17 | 5 |
| El Salvador | 35 | 4 | 206 | 10 | 36 | 10 | 12 | 8 | 72 | 14 | 21 | 13 |
| Colombia | 38 | 5 | 284 | 9 | 8 | 1 | 14 | 6 | 75 | 6 | 17 | 5 |
| Panama | 39 | 6 | 396 | 8 | 29 | 6 | 15 | 4 | 76 | 3 | 18 | 8 |
| Mexico | 41 | 7 | 564 | 5 | 51 | 15 | 20 | 2 | 76 | 3 | 18 | 8 |
| Honduras | 43 | 8 | 107 | 15 | 33 | 8 | 6 | 13 | 71 | 15 | 20 | 10 |
| Argentina | 45 | 9 | 663 | 1 | 25 | 3 | n/a | | 75 | 6 | 14 | 4 |
| Nicaragua | 47 | 10 | 92 | 16 | 42 | 12 | 4 | 14 | 73 | 11 | 28 | 15 |
| Ecuador | 52 | 11 | 200 | 11 | 50 | 14 | 15 | 4 | 73 | 11 | 20 | 10 |
| Bolivia | 54 | 12 | 69 | 17 | 28 | 4 | 12 | 8 | 66 | 17 | 48 | 17 |
| Guatemala | 56 | 13 | 186 | 12 | 59 | 17 | n/a | | 69 | 16 | 29 | 16 |
| Chile | 56 | 14 | 615 | 2 | 37 | 11 | 11 | 11 | 78 | 2 | 8 | 1 |
| Paraguay | 64 | 15 | 114 | 14 | 51 | 16 | 11 | 11 | 74 | 10 | 24 | 14 |
| Brazil | 67 | 16 | 606 | 3 | 34 | 9 | 12 | 8 | 73 | 11 | 20 | 10 |
| Peru | 70 | 17 | 160 | 13 | 31 | 7 | n/a | | 76 | 3 | 17 | 5 |
| Mean | 47 | | 342 | | 36 | | 14 | | 74 | | 20 | |
| Minimum | 31 | | 69 | | 8 | | 4 | | 66 | | 8 | |
| Maximum | 70 | | 663 | | 59 | | 37 | | 79 | | 48 | |

Per capita total expenditure on health is calculated at the average exchange rate (US$). Life expectancy is defined as the probability of dying between birth and age 1, per 1000 live births. n/a = Data on physician supply for these countries were available only pre-2000.

 

**Table 3** Public dissatisfaction with health care and governance indicators

| | Dissatisfied with health care[2] | | Control of corruption (2007)[12] | | Overall government effectiveness (2007)[12] | | Perceived level of democracy[2] | |
|---|---|---|---|---|---|---|---|---|
| | Percent | Rank | Score | Rank | Score | Rank | Score | Rank |
| Uruguay | 31 | 1 | 1.10 | 2 | 0.54 | 2 | 7.08 | 1 |
| Costa Rica | 34 | 2 | 0.45 | 3 | 0.30 | 3 | 6.99 | 2 |
| Venezuela | 35 | 3 | −1.04 | 16 | −1.08 | 17 | 6.69 | 3 |
| El Salvador | 35 | 4 | −0.28 | 7 | −0.21 | 9 | 4.84 | 15 |
| Colombia | 38 | 5 | −0.19 | 5 | 0.03 | 6 | 5.83 | 6 |
| Panama | 39 | 6 | −0.37 | 9 | 0.21 | 4 | 5.73 | 8 |
| Mexico | 41 | 7 | −0.23 | 6 | 0.17 | 5 | 5.4 | 13 |
| Honduras | 43 | 8 | −0.70 | 12 | −0.57 | 11 | 5.42 | 12 |
| Argentina | 45 | 9 | −0.38 | 8 | −0.12 | 10 | 6.02 | 14 |
| Nicaragua | 47 | 10 | −0.83 | 14 | −0.96 | 15 | 5.56 | 11 |
| Ecuador | 52 | 11 | −0.93 | 15 | −1.01 | 16 | 5.65 | 10 |
| Bolivia | 54 | 12 | −0.42 | 11 | −0.76 | 13 | 5.79 | 7 |
| Guatemala | 56 | 13 | −0.74 | 13 | −0.58 | 12 | 4.67 | 16 |
| Chile | 56 | 14 | 1.33 | 1 | 1.31 | 1 | 5.69 | 9 |
| Paraguay | 64 | 15 | −1.25 | 17 | −0.84 | 14 | 4.36 | 17 |
| Brazil | 67 | 16 | −0.15 | 4 | −0.07 | 7 | 5.88 | 5 |
| Peru | 70 | 17 | −0.30 | 8 | −0.43 | 10 | 5.09 | 14 |
| Mean | 47 | | −0.29 | | −0.24 | | 5.69 | |
| Minimum | 31 | | −1.25 | | −1.08 | | 4.36 | |
| Maximum | 70 | | 1.33 | | 1.31 | | 7.08 | |

**Table 4** Public dissatisfaction with health care: correlations with reported health-care experiences, health system performance and governance indicators

| | Pearson correlation | *P*-value |
|---|---|---|
| Correlation between public dissatisfaction with health care[2] and … | | |
| Perceived access problem[2] | 0.602 | 0.010 |
| Perceived cost problem[2] | 0.489 | 0.046 |
| Income disparity in reported access problem[2] | 0.471 | 0.056 |
| Per capita total expenditure on health at average exchange rate (2007)[9] | −0.274 | 0.287 |
| Out-of-pocket expenditure, % of total health expenditure (2007)[10] | 0.358 | 0.159 |
| Without health insurance (either public or private)[2] | 0.331 | 0.194 |
| Number of physicians per 10 000 population (2000–2007)[11] | −0.455 | 0.102 |
| Life expectancy at birth (2007)[11] | −0.233 | 0.367 |
| Infant mortality rate, per 1000 live births (2007)[11] | 0.300 | 0.243 |
| Control of corruption (2007)[12] | −0.218 | 0.402 |
| Overall government effectiveness (2007)[12] | −0.208 | 0.424 |
| Perceived level of democracy[2] | −0.572 | 0.017 |

health system experiences and performance and governance indictors.[2,9–12] The two measures that correlated most highly with public dissatisfaction were reported problems with access (Pearson's correlation = 0.602, $P = 0.010$) and perceived level of democracy (Pearson's correlation = −0.572, $P = 0.017$). The latter is a negative correlation because the lower the rating of democratic development, the higher the level of public dissatisfaction.

There are moderate correlations between public dissatisfaction and three other measures: reported problems with the cost of care (Pearson's correlation = 0.489, $P = 0.046$), income

disparities in reported problems with access to care (Pearson's correlation = 0.471, $P = 0.056$) and physician density in the country (Pearson's correlation = −0.455, $P = 0.102$). The latter is a negative correlation because the lower the physician density, the higher the level of public dissatisfaction.

The results suggest that neither health-care spending nor health insurance status *per se* is highly correlated with dissatisfaction with health care. In addition, neither life expectancy at birth nor the infant mortality rate per 1000 live births was highly correlated with dissatisfaction with health care.

A great deal of attention has been paid to control of corruption and overall government effectiveness. In these findings, neither is highly correlated with dissatisfaction with health care.

## Conclusions

The findings suggest that support for health system reform will not be as strong in some Latin American countries as in others, because popular dissatisfaction with health care varies a great deal from country to country. Moreover, there are wide variations among the countries in reported problems with access to and the cost of health care.

Public dissatisfaction is not highly correlated with some of the key measures often used by experts to judge the effectiveness of health-care systems. This suggests there may be a gap, especially in democratic states, between experts and the public on what should be the most important health priorities. Per capita health expenditures do not appear to be an important driver of public dissatisfaction in these Latin American countries, nor do life expectancy or infant mortality. When it comes to per capita health expenditures, prior studies in industrialized countries have had mixed findings, with some studies showing a correlation with public dissatisfaction, but others not showing a correlation.[13–15]

One measure that does seem to matter in trying to explain public dissatisfaction is reported problems with access to health care, which is correlated in these findings with the level of public dissatisfaction. Also, it appears that the presence of democracy creates a better environment when people seek health care and leads to higher satisfaction. Other measures often discussed seem to be of lesser significance in explaining public dissatisfaction.

An important implication of these findings is that the health system reforms that are likely to capture public support in Latin American countries are those seen as improving people's basic access to health-care services. Many other aspects to reform may be significant in improving health-care system performance, but they may not be as visible to people in these countries.

This analysis has three limitations. First, the data were collected in 2007, and substantial changes may have occurred in some Latin American countries since that time. However, the main purpose here is to analyse what drives attitudes, and one would expect those relationships to remain even if particular systems change.

Second, the analysis cannot deal with variations in expectations that might exist between countries. For instance, Brazil, which has one of the highest levels of per capita health expenditures in Latin America also has one of the highest levels of public dissatisfaction. It is difficult to know whether this is because of Brazilians' experiences with the health-care system or higher expectations in a country that has a rapidly growing economy.

Third, the survey does not provide granular data on people's experiences with various aspects of their health care, nor can we analyse what effect some of the particular characteristics of each country's health-care system might have. Such data might have led to more specific conclusions about what particular experiences with the health-care system drive satisfaction.

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## Conflicts of interest

None for any of the authors.

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