Political and social context of not attaining the Millennium Development Goal to reduce poverty
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Objective  Eradication of poverty is Target 1 of the first of eight Millennium Development Goals, which were adopted by world leaders at the United Nations General Assembly in the year 2000. This study aims to explore the influence of political and social context in the achievement of poverty eradication.

Methods  A retrospective ecological study was carried out to explore associations between progress towards the achievement of Target 1 in 2002 and political and social context variables. The study contained cross-sectional estimates in 1990, 1995, 2000 and 2002. The analysis and observation unit was the countries (n = 88). A descriptive analysis was made, as well as simple and multiple analyses with logistic regression.

Findings  Of the 88 countries studied, 71 (80.7%) are not on track to achieving the target of eradicating poverty. The factor most associated with non-attainment of this goal was reduced government consumption per capita (odds ratio, OR: 13.8; 95% confidence interval, CI: 2.92–65.26). In the multiple regression analysis, the most significant factors are: reduced government consumption per capita (OR: 9.8; 95% CI: 1.82–52.75), losses in the balance between imports and exports (OR: 5.3; 95% CI: 1.32–21.54) and more inequality in family income (OR: 4.7; 95% CI: 1.12–20.01).

Conclusion  Progress towards achievement of Target 1 seems to be hindered, fundamentally, by the significant reduction in government consumption in certain countries and the absence of redistribution policies. To understand the political determinants of poverty, more attention must be paid to the national and international political milieu, which seem to have a relevant impact on this problem and hence on population health.

Introduction  The eradication of poverty is one of the main priorities for the United Nations since its consequences have been – and continue to be – representing a structural barrier to development. 1 Poverty is deemed an unfavourable context whether it is in terms of protecting the environment, 2 gender equality, 3 children or the financial sector. 4 However, efforts to halt impoverishment have not always returned the expected results. Towards the end of the 20th century, the United Nations fuelled a global development project aimed at eradicating poverty from the world’s poorest countries. 5 As a consequence, negative experiences were reported in the 1990s, such as India’s lack of progress towards development 6 and the major impact of development on Latin America compared with Africa. 8 In fact, the dawn of the 21st century was overshadowed by the extremely high levels of underdevelopment in the world, which led the United Nations to set up an international agreement with the institutional and political backing of 191 countries. 9

The Millennium Summit held in the year 2000 specified the Millennium Development Goals (MDGs) and, within these, the Millennium Targets. The first goal (MDG 1) undertakes to eradicate extreme poverty and hunger. In relation to this, Target 1 aims to halve, by 2015, not only the proportion of people whose income is less than US$ 1 a day, but also the number of people who live in poverty, expressed as the percentage of people deemed below the established poverty line, with 1990 as the baseline for monitoring the proposed targets. But all the MDGs must be underpinned by poverty elimination strategies for their complete achievement. 10–14

The political and social context of countries is considered a structural health determinant by WHO’s Commission of Social Determinants of Health (CSDH). 15 In its framework on social determinants of health, social and political contexts are presented as structural determinants, including governance, macroeconomic policies, social policies, public policies, culture and societal values. Influenced as they are by variables related to social structure and hierarchy, and taking into account social and economic position as regards social class, gender and ethnic group, these determinants eventually have an impact on equity in health and well-being.

Based on this framework, poverty can be presented at a contextual level, as well as within the context of health results. This concept of poverty is supported by other definitions from the United Nations: deprivation as regards

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a long, healthy life, knowledge, an appropriate standard of living and participation.16 This idea also reinforces the need to take into account the structural, multicausal and multidimensional nature of poverty.17,18 Furthermore, proposals by CSDH, as well as those made by other authors, suggest that public policies are relevant determinants of poverty.19–21 The study of poverty and health could be incorporated into the so-called “political determinants of the social determinants of health” framework. This approach involves studying the way in which political decisions made by countries or transnational institutions play a key role in alleviating or, to the contrary, perpetuating or maintaining poverty.

The relationship between poverty and health is backed by scientific literature,22 which shows that it is the poorest societies that present the most severe problems of morbidity and mortality.23 Diseases, such as AIDS, which are highly-prevalent in low-income countries have been associated with poverty.24 Therefore, if no measures are taken to overcome poverty, it will be impossible for the population to reach its health and well-being objectives.25,26 Consequently, this study aims to explore, in a sample of countries, the influence of political and social context on MDG 1. This objective is based on the hypothesis that the significant reduction of government intervention, considered in terms of government consumption per capita, has a direct impact on poverty.

Methodology

A retrospective ecological study was carried out (1990–2002) using as its unit of analysis countries (n = 88) that had data available on the percentage of the population living below the poverty line. The influence of political, social and economic variables – following the framework developed by CSDH20 – was measured against the progress towards achievement of Target 1.

The variables analysed were: civil liberties and political rights (democracy), demographic conditions of the population, the urban population, inequalities in family income (Gini index), gross capital formation, imports and exports, domestic consumption and government consumption per capita (Box 1).

The following databases were selected. The United Nations Statistical Division was used for the percentage of the population below the poverty line,31 government consumption, domestic consumption, gross capital formation, imports and exports.32 Part of the information on the percentage of the population below the poverty line was also extracted from the World Bank database,34 as was the Gini Index for income inequality and the percentage of urban population.35 Information relating to the distribution of population by countries was obtained from the International Database of the Census Bureau.36 Data relative to civil liberties and political rights were acquired from Freedom House.30

To compare the trend observed in the evolution of poverty with the trend expected in accordance with MDG 1, a 1990–2015 projection of poverty levels in accordance with MDG 1 was made and the excess of poor people calculated. The observed trend (expressed as a percentage) for poverty for 1990, 1995, 2000 and 2002 was calculated and adjusted in accordance with the population size of the countries. The poverty trend expected for 2015 (a 50% reduction) was calculated by dividing by two the observed poverty percentage for 1990. The poverty average for 1990 and the MDG 1 for 2015 were used as the basis for the arithmetic projection of the forecast evolution of MDG 1 for the years 1995, 2000, 2002, 2005 and 2010. The percentages were transformed into absolute frequencies for the calculation of excess poor people; the frequency of poor people observed in 2002 minus the frequency of poor people forecast by MDG 1 for the same year.

The influence of the political, social and economic variables on progress towards achieving Target 1 was explored in the 88 countries for which information was available.

First, the countries were classified in accordance with the average percent-

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### Box 1. Definition of the study variables

#### Constant price series in US dollars

Data in constant prices in US dollars are converted from data in constant prices in national currency using the annual period-average exchange rate of the base year for all years.

#### Domestic consumption (end-cost of household consumption) (GDP)

Cost incurred by household residents, including the imputed costs, on goods for individual consumption and services, including those sold at economically low prices.

#### Government consumption (end-cost of government consumption, public expenditure)

The costs incurred by the government, including the imputed costs, on goods and services for individual and collective consumption.

#### Gross formation of capital (GDP)

Total value of the acquisitions of a producer, minus the sale of fixed assets during the financial period and variations in stock.

#### Imports of goods and services (GDP)

Purchases, barters and outgoings as donations or subventions, of goods and services made by residents from non-residents.

#### Exports of goods and services (GDP)

Sales, barters and outgoings as donations or subventions, of goods made by residents to non-residents.

#### Freedom index

Numerical expression from 1 to 7 of the degree of a country’s development of political rights and civil liberties, with 1 being the greatest level of freedom and 7 the lowest.

#### Gini index

Numerical expression from 0 to 1, or from 0 to 100, which expresses differences in the distribution of family income in a country. The best condition of equality is shown by 0 and the worst by 1, or by 100.

#### Percentage of the population below the national poverty level (line)

Proportion of inhabitants whose income is below the official threshold (or thresholds) declared by the national government. National poverty levels generally take into account the different compositions and sizes of the families within the country’s homes. In countries with no official definition of poverty levels, these may be defined as the level of income required to have sufficient food or food plus other elements necessary for survival.

GDP: gross domestic product.
age of population below the poverty line that should have been achieved in 2002: 0 = achieved (21.0% or lower of poor people), 1 = not achieved (over 21.0% of poor people).

Second, for each variable, the data concerning the years reported for poverty were selected for each country and were converted to per capita values through adjustment to the population size. For each country, the average for the 1990–2002 period was calculated and the per-capita poverty-adjusted series were drawn up for government consumption, domestic consumption and gross capital formation.

For stratification, the population average for all the countries was used as the cut (except in the balance of trade) as this is the central trend measure that offers the best discrimination (receiver operating characteristic curve) between the different strata (Box 2).

Simple and multiple logistic regression models were applied to analyse the associations between the independent variables and the progress towards the achievement of Target 1. Variables that were significant at the \( P = 0.05 \) level in the simple models were included in the multivariable model. The database was created using Microsoft Excel (Microsoft, Redmond, WA, United States of America) and the statistical analyses were carried out using the Statistical Package for the Social Sciences (SPSS) version 12.0 (SPSS Inc., Chicago IL, USA).

**Results**

The 88 countries included in this study represent almost half the member countries of the United Nations. The percentage of poverty in the countries included in the study is diminished in accordance with the World Bank classification; no country classified as high-income forms part of the group that reports a population below the poverty line while, in contrast, 33% of upper-middle-income countries, 68% of lower-middle-income and 72% of low-income countries do so.

These 88 countries accounted for an estimated 75.4% of the global population in 2002. In this year, 225.7 million more people lived in poverty in these 88 countries than the estimate made for achievement of Target 1. They represent 25.6% of the population in these countries and 19.4% of the world population. More than half of these countries are in the WHO regions of Africa (\( n = 29 \)) and the Americas (\( n = 21 \)) (Table 1).

Given that adequate progress towards achieving Target 1 required the population living below the poverty line to be reduced to 21.9% by 2002, the observed situation shows an excess of poor people with regard to the forecast. Fig. 1 shows the diverging trend of the evolution of poverty (given in percentages) with regard to the theoretical line projected by Target 1.

Of the 88 countries, 71 (80.7%) are not on track to achieving Target 1 of eradicating poverty. The countries that are progressing show less inequality in family income, greater government consumption, increased domestic consumption and higher gross formation of capital, as well as profit in the import–export balance 1990–2002 (Table 2).

The simple logistic regression shows that all variables studied, with the exception of civil and political rights, are significantly associated with progress towards achievement of Target 1 via the percentage of the population below the poverty line in the year 2002. Nevertheless, those with the most significant associations are government consumption per capita (odds ratio, OR: 13.8; 95% confidence interval, CI: 2.92–65.26), gross capital formation per capita (OR: 12.4; 95% CI: 2.62–58.66), domestic consumption (OR: 11.5; 95% CI: 2.44–54.28) and the percentage of urban population (OR: 7.7; 95% CI: 1.64–36.24). The multiple logistic regression shows significant associations between achievement of Target 1 and government consumption (OR: 9.8; 95% CI: 1.82–52.75), the balance between imports and exports 1990–2002 (OR: 5.3; 95% CI: 1.32–21.54) and inequalities in family income measured by the Gini index (OR: 4.7; 95% CI: 1.12–20.01) (Table 3).

**Discussion**

Poverty in the 88 countries analysed in this study is not being reduced at the pace established by the MDGs. Progress towards achievement of Target 1 seems to be hindered, fundamentally, by the significant reduction of government consumption. A significant association between the balance between imports and exports and inequalities in family income

<table>
<thead>
<tr>
<th>WHO regions</th>
<th>Number of countries</th>
<th>Countries as a percentage of region</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td>29</td>
<td>64</td>
</tr>
<tr>
<td>Americas</td>
<td>21</td>
<td>60</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td>European</td>
<td>17</td>
<td>33</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>88</strong></td>
<td><strong>46</strong></td>
</tr>
</tbody>
</table>
income variables and the achievement of Target 1 was found in this study.

The main limitation of this study is the lack of information from a large number of countries. Data from the United Nations are estimated from a mix of sources and methods and are therefore not real data. However, these are the only data available to test our hypothesis at a global level so the probability of a differential misclassification bias could not be solved. Nevertheless, the majority of the world’s population was covered. This study takes government consumption as the main independent variable. It represents the amount of public spending and government distribution and redistribution functions. Therefore, if the government played a restrictive role, the decrease in resources available to the population, such as the number of civil servants, health programmes, education and social benefits, would have a direct impact on poverty levels.37

Countries that show experiences of reduction in social policies include India, where spending was reduced in primary education, farming subsidies and health issues.38 In Latin America, reduction of public spending on health has generated greater inequality since the 1980s.39 European countries such as Italy applied reductions in education, health, pensions and social benefits,40 In the United States of America between 1981 and 2000, reductions were made in education, health, pensions and social aid, which produced a drop in economic transfers to the population and contributed to an increase in the inequality of total family income distribution.41

In a report published in 2000, the United Nations Research Institute for Social Development (UNRISD) indicates that a reduction in public spending usually occurs in response to external factors. It states that 126 countries were pressured by the Bretton Woods institutions (World Bank and International Monetary Fund) to reform their public spending, among other structural adjustment measures. Sixty countries were obliged to restructure their social sector and 46 were forced to privatize and open their trade to the free market.42

The import–export balance also seems to have a significant effect on reducing or perpetuating poverty. One of the influencing factors is the World Trade Organization’s policies, whereby poor countries do not have the same decision-making power over their resources and the commercialization of their products as rich countries, which obviously seriously affects their development.43 The fact that poor countries lack decision-making power and control over their economies also affects the role of the government and its ability to combat poverty.44

Inequality in family income is another important factor related to poverty. It would be worthwhile analysing how countries with significant inequalities of wealth distribution perpetuate poverty and cause levels to

![Comparison of the evolution of poverty and the expectations of Target 1 of the Millennium Development Goals, 1990–2002](image)

**Fig. 1.** Comparison of the evolution of poverty and the expectations of Target 1 of the Millennium Development Goals, 1990–2002

<table>
<thead>
<tr>
<th>Variables</th>
<th>Achieved</th>
<th>Not achieved</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>IQR</td>
<td>Value</td>
</tr>
<tr>
<td>Countries</td>
<td>17</td>
<td>–</td>
<td>71</td>
</tr>
<tr>
<td>Population below poverty line (%)</td>
<td>15.5</td>
<td>6.9</td>
<td>41.8</td>
</tr>
<tr>
<td>Urban population (%)</td>
<td>60.1</td>
<td>17.3</td>
<td>38.2</td>
</tr>
<tr>
<td>Gini index a</td>
<td>38.4</td>
<td>6.6</td>
<td>44.9</td>
</tr>
<tr>
<td>Freedom index c</td>
<td>4.23</td>
<td>3.18</td>
<td>4.00</td>
</tr>
<tr>
<td>Government consumption (per capita) c</td>
<td>307.6</td>
<td>319.4</td>
<td>98.1</td>
</tr>
<tr>
<td>Domestic consumption (per capita) c</td>
<td>1 253.7</td>
<td>1 128.0</td>
<td>524.6</td>
</tr>
<tr>
<td>Gross formation of capital (per capita)</td>
<td>541.6</td>
<td>493.6</td>
<td>150.6</td>
</tr>
<tr>
<td>Sum of balance of imports–exports (per capita)</td>
<td>–256.7</td>
<td>3 363.8</td>
<td>–619.1</td>
</tr>
</tbody>
</table>

Table 2. Relationship between the political and social context variables with the achievement of Target 1 of the Millennium Development Goals, 2002

1 IQR, interquartile range (Q3–Q1).
2 Values between 0 and 100 (0 = no inequalities; 100 = maximum inequality).
3 Values between 1 and 7 (1 = maximum freedom; 7 = minimum freedom).
4 Constant dollars at 1990.
rise. Local experiences have been reported, for example in Kerala, India, which have shown how redistribution policies have compensated for the lack of economic resources or extremely low levels of public spending, obtaining positive results on population health and development.

Bambra et al. have considered health determinants such as poverty as a political issue that affects all social and economic spheres. For example, the structural adjustment policies that were introduced in low-income countries in the 1980s caused an effect on population health. In a study of 198 countries, JE Lawn et al. observed that neonatal mortality rates were greater and less likely to drop in low-income countries and among the poorest populations in 20 African countries.

In another study of 117 countries, S Anand et al. observed that the ratio of health workers per capita is related to maternal and infant mortality rates, and concluded that reducing poverty directly reduces mortality. In these studies, poverty can be seen as well as the consequence of decisions made by political institutions, which foster social injustice. Also, the role of multilateral institutions and the interconnection of the political players at different levels could have an impact on the mechanisms that affect poverty.

The priority given to problems resulting from poverty and ill health on the political agenda determines the action taken. The fragmentation of political institutions, problems of governability and resistance due to conflicts of interest mean that reform within public services only occurs occasionally. Profound changes to the conception and development of public policies are needed to strengthen the government’s functions on wealth redistribution by closing the inequality gap produced by a poverty-generating economic model.

Conclusion

In the same way that the influence of government consumption on health indicators is being researched, it would be of great use to explore the evolution of the other Millennium Targets that are based on this or other political determinants. Studying the role of policies in the different Millennium Targets could help us to understand the related difficulties and obstacles that lie in the path to achieving these objectives. Consequently, the Millennium Targets may possibly be reached more effectively through a substantial turnaround in public policies.

The implications of this study include understanding the political processes that modify courses of action and insisting upon a change in the focus of research into social phenomena, turning the spotlight on the wider political stage.

More scientific knowledge must be generated on the political determinants of social factors that contribute to poverty and on how this causal chain affects population health. Empirical studies with an appropriate epidemiological design are needed to observe the possible relationship between one or more independent macro and contextual variables (political, economic or social) and population health.

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Competing interests: None declared.
Résumé

Contexte politique et social dans lequel l’objectif du Millénaire pour le développement portant sur la réduction de la pauvreté n’est pas atteint


Résultats Parmi les 88 pays étudiés, 71 (80,7 %) ne sont pas sur la voie d’une réalisation de l’objectif 1 d’éradication de la pauvreté. Le facteur le plus fréquemment associé à la non-réalisation de cet objectif est la baisse des dépenses publiques par habitant (odds ratio, OR : 13,8 ; intervalle de confiance à 95 %, IC : 2,92 - 65,26). D’après l’analyse de régression multiple, les facteurs les plus importants sont : la diminution des dépenses publiques par habitant (OR = 9,8 ; IC à 95 % = 1,82 - 52,75), l’insuffisance des importations par rapport aux exportations (OR = 5,3 ; IC à 95 % = 1,32 - 21,54) et une plus forte inégalité des revenus familiaux (OR = 4,7 ; IC à 95 % = 1,12 - 20,01).

Conclusion Les progrès vers la réalisation de l’objectif 1 semblent être entravés essentiellement par la baisse importante des dépenses publiques dans certains pays et l’absence de politique de redistribution. Pour comprendre les déterminants politiques de la pauvreté, il faut s’intéresser de plus près au milieu politique national et international, qui semble avoir une influence notable sur cette problématique et ainsi sur la santé de la population.
References


Research

Marco Palma-Solis et al.


