

flood prone land, asked Congress for \$430million to shore up the levees. Louisiana Congressional officials sought \$14billion to revive the coastal wetlands, but got only \$ 0.57billion. By 2004, the Administration instead had cut funding by 80%, and what was available was often spent on less than necessary water projects in Louisiana to support industry, with limited regard for environmental damage while destroying millions of acres of storm blocking wetlands.<sup>4</sup>

## ENVIRONMENTAL IMPOVERISHMENT

The health risks raised by the disregard of poverty by policymakers and the inadequacy of public health and safety preparedness agencies were multiplied by the decline in environmental protection. Beyond continuous budget cuts in recent years, the EPA became newly headed by political rather than professional appointees. It redefined regulatory terms such that “wetlands”—which were not to be used for economic development—became open to commercial purposes in the Gulf region, weakening the shoreline buffer against storm surges. In line with the Administration’s policy to lighten government regulation of business, it focused on re-writing rules protecting drinking water and air; asbestos and mercury elimination, and as most widely known, global climate change.

As a case in point, an environmental official in the White House, a former Petroleum Institute lobbyist, edited an EPA climate change report so as to raise uncertainties about whether global warming is occurring and downplaying potential damage. (He soon resigned

and went to work for the giant oil firm Exxon-Mobile.)

Katrina and Rita revealed another facet of climate change that policymakers are not acknowledging. Over 2 million evacuees mandated to leave Houston, Texas during Rita were caught in gridlock on the expressways because there were too many cars. People in New Orleans were caught in town because they had no cars. What they shared with all Americans is a dependence on cars—the mark of “freedom” to move “whenever and wherever”. That devotion adds to US oil dependence, which makes a large contribution to imprisoning the world’s population under a thickening blanket of water warming greenhouse gases, intensifying hurricanes.

## WHAT NEXT?

The Administration’s answer to auto-oil dependence is to promote more of the same. The Governor of Louisiana wants billions to build more highways for the next evacuation. The Department of Interior is planning to expand energy development on public lands, including the pristine Alaska National Wildlife Reserve and the nation’s coastal waters, ending a 25 year moratorium. The new Energy Act provides many billions mainly to promote fossil fuel industries.

With a projected \$150–200 billion needed to restore New Orleans and surround—which has one of the highest poverty rates in the country—the majority Republican Party’s Study Group proposed to cut the 2005–2006 budget further to pay the disaster’s costs, producing \$370 billion in “savings” over five years. These cuts involve the services and protections that were already deficient and helped create the vulnerabilities of

New Orleans and the coastal poor, including health and education programmes, home care, energy conservation; water quality and wastewater infrastructure; high speed rail development and new public transit; neighbourhood investment and minority business development, legal services for the poor and local emergency worker grants.<sup>5</sup>

In the new century, US leaders’ commitment has been to “free market” solutions to public issues. This wake up moment could be more healthfully used to restore financing to reduce poverty to at least European levels; to rebuild adequate public health and safety capacity, and to enable tools to protect environments, moving toward a new energy future, for example, a national intercity rail system, linking small and large cities, spurring rural development, new transportation options, conservation, energy efficiency technologies and buildings, new energy sources and new good jobs, training and education, discouraging sprawl and energy expensive houses.

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Primary health care

# Effectiveness of primary health care evaluated by a longitudinal ecological approach

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The expansion of primary health care in Brazil is shaping the agenda for health care policy in the Latin American region.

**B**razil is the country with the third worst income distribution in the world and, as a consequence of the unequal distribution of its main determining factors—income, education, living conditions, sanitation, and health

service<sup>1</sup>—the health indicators also present broad inequalities by regions and social classes. Child health, because of greater vulnerability to risks and also to health protective factors, is a clear example of this iniquitous situation in

Brazil. In 1999, the child mortality rate in the north eastern region of Brazil was 52.4/1000, while in the southern region it was 17.2/1000 live births.<sup>2</sup> A population based investigation performed in 1990–1991, in two cities in the north east<sup>3</sup> found 40% of avoidable deaths among the absolute total of children who died aged less than 1 year. One of the strategies of the Ministry of Health to develop the National Health System (SUS), bringing together effectiveness and equity, has been to extend the primary health care network through the Family Health Program (PSF, Programa Saúde da Família). The PSF intends to increase access to health care services, contributing to universalise care, in a context of limited resources. The social groups targeted by this strategy were initially those with greater socioeconomic vulnerability, so as to contribute to reducing the inequities in

health.<sup>4</sup> Today the PSF is the way into the SUS for over 60 million inhabitants, and is one of the largest primary care programmes in the world.<sup>5</sup> Thus, a study like that of Macinko *et al*,<sup>6</sup> which performed a longitudinal evaluation, at a national level, of a broad primary health care strategy, is important to consolidate this model of care in Brazil and also internationally, to contribute scientific evidence on the effectiveness of primary care, more than 25 years after Alma-Atta.

The use of secondary data is quite a useful tool for the analysis of contribution of primary health care. This paper evaluated primary health care in Brazil using an aggregate risk study. Brazilian states were classified by the general level of exposure to the Family Health Program in their environment. It is important to bear in mind that an aggregate risk study is rarely definitive. The main problem is a potential methodological bias (ecological fallacy). Otherwise, its longitudinal ecological approach, controlling for confounding factors, showed the important contribution of the Family Health Program to decreasing infant mortality in Brazil. The PSF should be acknowledged as a collective strategy to optimise health. In this sense, the ecological approach presents advantages to identify the collective effects of this strategy that should not be reduced to a purely individual health action (the “individualistic fallacy”).<sup>7</sup>

From the perspective of public policies, the study by Macinko *et al* provides

important evidence for managers, professionals, and population on a health action—the PSF—that has occupied an outstanding position in the field of public policies in Brazil. The development of creative strategies to evaluate national public policies in health is important to defend the use of public resources to improve the health conditions of the population and to seek equity, especially in areas with great inequalities such as in Brazil.

Macinko *et al* show the importance of performing studies using secondary data, and they emphasise that an accessible, comprehensive, coordinated, and longitudinal health care model based on promotion and protection, on early diagnosis, on the return to health of individuals and family, is essential to improve the health indicators. This study also contributes to identifying strategies to monitor the effectiveness of a national programme. Strategies that seek to qualify the public health policies by using scientific evidence, such as The Observatory on Public Policies and Health for Latin America, which is under the leadership of the University of Alicante, value this type of investigation to help managers in decision making.

This paper will certainly help further organisational models for health care in developing countries. It is important to recognise that the current status of each country is unique, but the expansion of primary health care is shaping the agenda for health care policy in the Latin American region.

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## THE JECH GALLERY

Public health leader—heal thyself

A poster display seen at a public health conference.

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