

Reduction in socioeconomic inequalities in the quality of primary health care under Brazil's national pay-for-performance scheme

KEY MESSAGES

- Given the extensive and entrenched health and socioeconomic inequalities in Brazil, it is crucial to assess the extent to which public policies reduce or exacerbate disparities.
- One such policy is the National Programme for Improving Primary Care Access (PMAQ), a pay for performance (P4P) scheme which aimed to strengthen primary health care (PHC) by providing financial payments to municipalities based on the quality of services they delivered.
- Longitudinal research examined socioeconomic inequalities in the performance of almost 14,000 family health teams (primary care providers) during the three rounds of PMAQ between 2011-2019.
- It found that at the beginning of PMAQ in 2011, income was associated with better performing family health teams. However, over the course of the programme, income inequalities in the delivery of PHC were eliminated. Inequalities between the disadvantaged northern region and wealthier southern regions were also reduced.
- One explanation for this is a design feature of PMAQ that adjusted financial payments for socioeconomic differences between municipalities. This finding has important implications for how P4P incentive design can be used to reduce existing inequalities within the health system.
- The reduction in inequality in the quality of PHC shouldn't divert attention from large inequalities in health in Brazil, which remains an important policy agenda to address.

BACKGROUND

Brazil has made substantial progress towards achieving Universal Health Coverage and improving health outcomes over the past two decades by investing heavily in PHC and implementing innovative programmes at scale. Family health teams are the foundation of Brazil's PHC system. They act as the first point of contact and comprise at least one physician, nurse, nurse assistant, and full-time community health worker.

In 2011, Brazil launched the National Programme for Improving Primary Care Access and Quality (PMAQ) as a strategy to further strengthen PHC by incentivising primary health care providers to improve quality of care (see box 1 for details of PMAQ). PMAQ was one of the largest P4P schemes in the world, involving 40,000 family health teams with expenditure of US\$1.5 billion (R\$8.6billion) between 2011 and 2017.

The programme included a design feature to address the high levels of inequality in Brazil by adjusting the financial rewards given to municipalities according to their socioeconomic status.

PURPOSE

This research brief highlights the key findings and policy implications from research that examined socioeconomic inequalities in the quality of care delivered by almost 14,000 family health teams in successive rounds of PMAQ. Whilst there have been several evaluations of P4P schemes from around the world, few consider the distribution of their effects, and whether they exacerbate or reduce existing inequalities in the performance of healthcare providers. This area of focus is particularly important in Brazil, which is characterised by high levels of health and socioeconomic inequalities, both between and within regions, municipalities and local areas.

ABOUT PMAQ

- PMAQ was a voluntary federal programme that made financial payments to municipalities based on the performance of family health teams.
- PMAQ was implemented over 3 cycles starting in 2011: round 1 (2011-13), round 2 (2013-15), round 3 (2015-19).
- Each cycle began with an assessment of the performance of family health teams, which determined monthly payments made for the subsequent 2–3-year period.
- PMAQ incentivised hundreds of indicators including those relating to structural quality of care (e.g., availability of drugs, equipment), process of care, outcomes, and utilisation of healthcare.
- Family health teams achieved points for reaching targets specified alongside each indicator to achieve a PMAQ score.
- On the basis of the PMAQ score, each participating team was placed into a performance group that reflected the monthly financial reward.
- The amount of money municipalities received was the sum of the specific rewards of family health teams.
- In the first two rounds of PMAQ, an adjustment was made for socioeconomic inequality: municipalities in the country were divided into six socioeconomic bands, and performance groups were defined with reference to the distribution of PMAQ scores within each socioeconomic band.

MEASURES USED IN THE RESEARCH

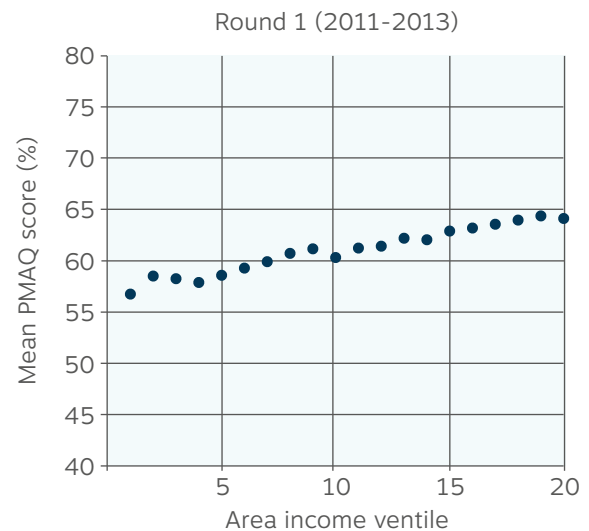
Performance: The performance of family health teams, a proxy for quality of care, was measured using the PMAQ score ranging from 0-100, with 0 representing the lowest possible score, and 100 representing the highest possible score.

Socioeconomic status: The socioeconomic status of each local area was measured as the mean (average) monthly household income in the location of family health teams. For the analysis, local areas were allocated into 20 income groups, ranked from poorest (1) to richest (20).

KEY FINDINGS

The research documented a reduction in inequality in the quality of primary health care delivered by family health teams participating in PMAQ – both between relatively rich and poor local areas, and between geographical regions.

- 1 At the start of PMAQ, family health teams in richer areas performed better than those in poorer areas.



At the time of round 1 (2011), local area income was associated with higher PMAQ scores throughout the income distribution, although the strength of the relationship was modest. This is likely due to pre-existing inequalities in the quality of primary care providers before PMAQ started, as data collection was carried out before bonus payments were awarded.

- 2 Over the duration of PMAQ, there was a reduction in inequality in the quality of primary health care services delivered.

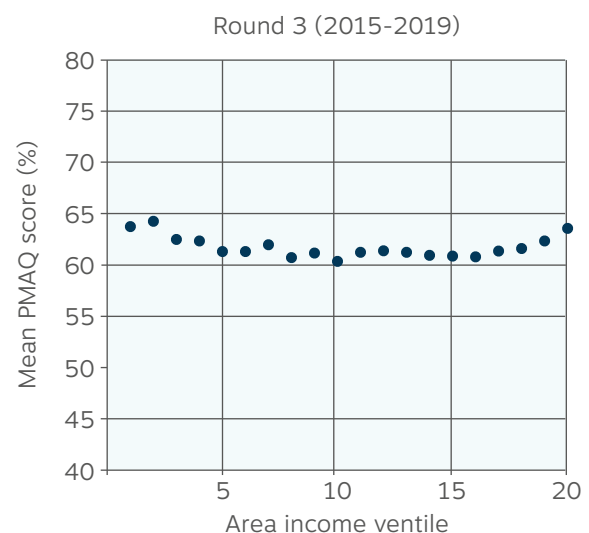
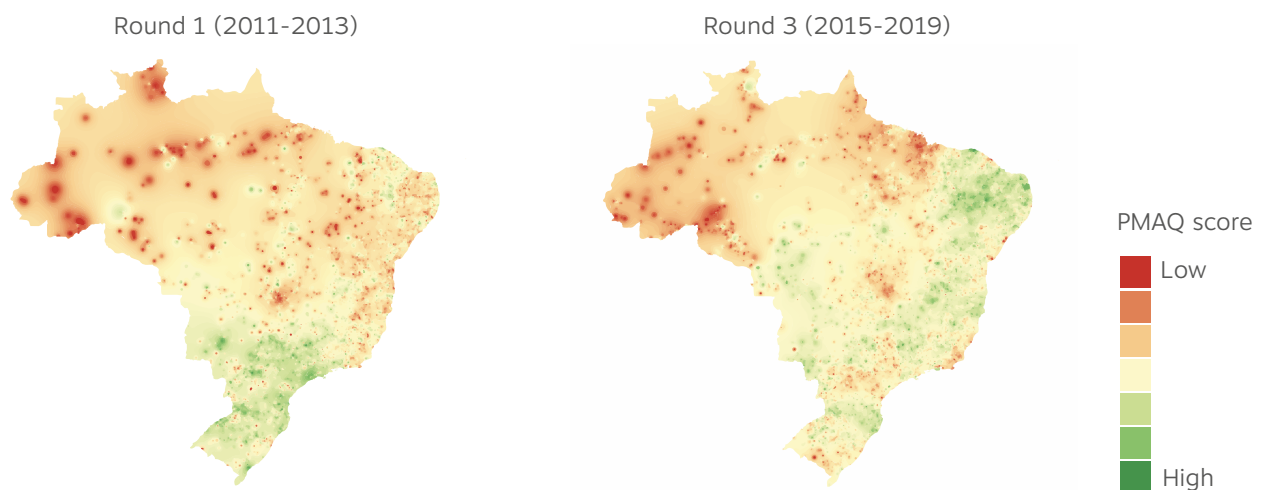


Figure 1: Geographical variation in PMAQ performance



Income inequality in the PMAQ scores decreased over time and by round 3 (2015-2019) there was no discernible difference performance between richer and poorer areas. The performance of family health teams in the bottom 5% of the local area income distribution improved over three rounds, whereas those in the top 5% had no improvement.

- 3 Inequalities in performance between the disadvantaged northern region and the wealthier southern region also reduced during PMAQ.

At the start of PMAQ, family health teams in the northern region performed less well compared to the southern region (figure 1). However, between round 1 and 3, the performance of many teams in the northern region improved, whereas teams in the southern region and concentrated clusters of teams in the northern region started to perform less well.

- 4 One likely explanation for the narrowing in the socioeconomic gap in PMAQ performance relates to the design of the P4P scheme.

Financial payments within PMAQ were adjusted for socioeconomic differences between municipalities in the first two rounds. This meant that poorer municipalities received higher rewards than they would otherwise have done, which – if invested in primary care services – could be expected to reduce inequalities in performance.

IMPLICATIONS FOR POLICY

- In the design of P4P programmes, policymakers should consider adjusting rewards for socioeconomic differences between areas as a means to address health care inequalities.
- Policymakers should recognise the value of performance monitoring introduced as part of P4P programmes and make these routine data publicly available to improve accountability.
- There is an unfinished agenda – policymakers must be proactive in targeting the social determinants of health to address the large health inequities that continue to this day in Brazil.

More information: <https://www.lshtm.ac.uk/research/centres-projects-groups/equipmaq>

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About EQUIPMAQ: The EQUIPMAQ project investigates how the national programme for Improving Primary Care Access and Quality (PMAQ) has affected socioeconomic inequalities in the financing and delivery of primary care. We are a multi-disciplinary team of researchers based in the United Kingdom and Brazil funded by the UK Medical Research Council, Newton Fund, and CONFAP (Conselho Nacional das Fundações Estaduais de Amparo à Pesquisa).