

RESEARCH ARTICLE



## Filling Potholes on the Road to Universal Health Coverage in the Philippines

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### ABSTRACT

The fraction of health-care costs financed from prepayment sources is a critical indicator of progress toward Universal Health Coverage. But it does not tell how prepayment varies with the level of health-care costs and between poorer and richer patients. This paper used survey data from the Philippines to estimate inpatient costs paid by the National Health Insurance Program (aka PhilHealth) in 2013–2017 when attempts were made to extend population, service and financial coverage. The mean fraction of the inpatient bill paid by PhilHealth increased by 21 percentage points. Expansions of population coverage do not appear to have been primarily responsible for this increase. Despite the introduction of a catastrophic cover benefit package, the fraction of inpatient costs that were prepaid increased more at lower costs than at higher costs. PhilHealth payments for inpatient care were pro-rich but became substantially less so, possibly because hospitals were no longer permitted to charge poor patients in excess of reimbursement ceilings. Overall, prepayment of inpatient costs increased and became more pro-poor, reflecting gains in insurance and equity.

### ARTICLE HISTORY

Received 15 December 2020  
Revised 26 March 2021  
Accepted 26 March 2021

### KEYWORDS

Health insurance; universal coverage; medical expenses; financial protection; the Philippines

### Introduction

Governments aiming to make Universal Health Coverage (UHC) effective must increase the fraction of health-care costs financed from prepayment sources and reduce the fraction paid out-of-pocket (OOP). Expansion of population coverage will be a blunt instrument to bring about these changes in the structure of health financing if service coverage is narrow and shallow, leaving the nominally insured exposed to costs of treatments that are not in the benefit package, and facing high coinsurance rates and low reimbursement ceilings for those that are. Deepening service and financial coverage will increase the effective coverage delivered by any expansion of population coverage.

Prior to the legislation of full population coverage in the Philippines in 2019, efforts to improve effective coverage did not only include gradual extensions to more populations groups—most notably, the poor and the elderly—but also attempts to fill holes in service coverage, including for inpatient care. Case rates were introduced for inpatient treatments, government hospitals were prevented from charging poor patients and pregnant women in excess of reimbursement ceilings, a catastrophic care package covering high-cost inpatient treatments was introduced, the benefit package was further extended to include medicines and

laboratory tests obtained outside of the inpatient treatment hospital, and point-of-treatment enrollment was offered in hospitals alongside information on benefit package entitlements and assistance in claiming reimbursements.

While it is not possible to identify the extent to which these policy initiatives have improved effective coverage, we can assess whether trends are consistent with implementation of the measures having contributed to improved coverage. National Health Accounts could be used to monitor progress in shifting the structure of health financing in aggregate, but they would tell us nothing about the distribution of prepaid benefits between higher and lower cost treatments, and between poorer and richer patients. Financial protection metrics, such as catastrophic and impoverishing OOP payments,<sup>1–3</sup> would provide scope for distributional analyses, but would not tell us about the extent of insurance, defined as the fraction of health care costs financed by prepayment, nor how this varies with the magnitude of costs and the economic circumstances of the patient. A limitation of the usual financial protection analysis is that it focuses on uninsured OOP payments that the insurance agency influences only indirectly without considering the magnitude, relative size and distribution of insured health-care costs that are directly determined by policy.

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 Supplemental material for this article can be accessed online at <https://doi.org/10.1080/23288604.2021.1911473>

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This paper used household data from the 2013 and 2017 Philippine National Demographic and Health Surveys (NDHS) on reported payments for inpatient care that are made by households OOP and by the National Health Insurance Program (aka PhilHealth). These data were used to estimate changes in the fraction of inpatient costs that were paid by PhilHealth during the period in which the attempts were made to deepen service and financial coverage and make it more effective before universality was decreed in 2019. We focused on inpatient care because the data distinguished household OOP payments from PhilHealth payments for this type of care only. Obstacles to implementation could have blunted the impact of the policies on effective coverage. We assess whether these obstacles have been avoided, such that the fraction of inpatient costs that were pre-paid by PhilHealth increased as expected.

We estimated mean OOP payments, PhilHealth payments, the aggregate of the two and the fraction paid by PhilHealth. We compared these estimates for 2013 and 2017 for all households that made use of inpatient care, and for subpopulations defined by PhilHealth coverage, as well as by age and proxies for poverty status. This allowed us to assess the extent to which the observed change in the fraction of inpatient costs paid by PhilHealth was plausibly attributable to extensions of coverage to the poor and elderly populations. In addition to the comparison of means, we examined how the fraction of inpatient costs paid by PhilHealth varied with the level of those costs. This revealed whether high- or low-cost treatments were more fully insured, and provided some impression of whether the introduction of catastrophic cover raised insurance for high-cost treatments in particular. We examined how PhilHealth payments for inpatient care varied over the distribution of a proxy for household wealth and so assessed the extent which PhilHealth spending on inpatient care was pro-rich or pro-poor, and how this changed during a period in which social insurance was extended to cover more of the poor and deepened by removing the right of government hospitals to charge the poor over and above the reimbursement they received from PhilHealth. These policies addressed concerns that without giving the poor preferential access to a public health system that operated under a tight budget constraint, public health subsidies, including those paid through PhilHealth, were not sufficiently targeted on the poor.<sup>4</sup>

The 2013 and 2017 NDHS have previously been used to show that PhilHealth coverage was positively correlated with health care (inpatient and outpatient) utilization, and that households who used PhilHealth benefits had higher health-care costs.<sup>5</sup> We examined payments for inpatient care, not utilization of it, with a particular

focus on the contribution of PhilHealth to those payments, and to the distribution of PhilHealth payments in relation to the cost of inpatient care and the wealth of the patient. These data have also been used to document increased PhilHealth coverage of the elderly, and reduced inequality in the health-care utilization within this group, consistent with the introduction of the Seniors Program in 2014.<sup>6</sup> The Philippine NHA shows that while PhilHealth population coverage expanded between 2005 and 2016 and there was substantial growth in spending on the program in this period, its contribution to the total health expenditure remained lower than OOP finance.<sup>7</sup> Our analysis went beyond the aggregate picture provided by the NHA to show changes in the fraction of inpatient costs paid for by PhilHealth, and how these payments varied with the level of costs and household wealth. Between 2000 and 2012, when population coverage increased but the deepening of service and financial coverage had not yet been attempted, mean OOP payments increased for all wealth quintile groups, and so did the prevalence of catastrophic payments.<sup>8</sup>

## Policy Initiatives

The 2019 Universal Health Care Act granted all Filipinos cover under PhilHealth.<sup>9</sup> In the decade leading up to this landmark legislation, a series of laws and administrative orders sought to extend population coverage, deepen service and financial coverage, and improve effective coverage through provider payment reforms and claim assistance to patients (Appendix Table A1). The percentage of current health expenditure (CHE) financed by PhilHealth increased from 8.1% in 2009 to 18.8% in 2019.<sup>10</sup> Over the 2013–2017 period we studied, PhilHealth's share of CHE increased from 11.4% to 17.2%.<sup>10</sup>

From 2011 to 2016, there was phased coverage expansion that used poverty targeting based on a unified means test to more comprehensively provide fully subsidized insurance to poor households on a national list.<sup>11,12</sup> The national government paid for the cover of the poorest households with revenues from the 2012 Sin Tax Law, 80% of which were earmarked for universal health care.<sup>13</sup> Initially, financial responsibility for covering less poor households rested with local governments, which left ample scope for a persistent gap in coverage of this population. The 2013 National Health Insurance Act closed that gap by shifting the responsibility onto the national government, thus securing complete coverage of all the targeted poor.<sup>14</sup> PhilHealth cover of all senior citizens (age  $\geq$  60 years) was granted in 2014.<sup>15</sup> Additionally, efforts were made to plug holes in the coverage of other vulnerable groups, including orphans, abandoned and abused minors, out-of-school youths and street children.<sup>16</sup>

Attempts to make coverage more effective include the introduction in 2011 of a No Balanced Billing (NBB) rule that prevents government hospitals from charging poor patients—covered by specific PhilHealth programs—in excess of case rates.<sup>17</sup> Previously, excess charges further impoverished poor patients or deterred them from seeking treatment at all, which would skew the distribution of publicly subsidized treatment toward the richer population.<sup>4</sup> Initially, case rates were set for 11 medical and 22 surgical procedures that accounted for around a half of total claims.<sup>17</sup> Under this policy, hospital inpatients—poor and non-poor—became entitled to reimbursement for costs of medicines and laboratory tests obtained outside of the treatment hospital, with any such expenses being deducted from the case rate paid to the hospital. In 2012, the NBB rule was extended to certain outpatient surgery, hemodialysis and radiotherapy received by poor patients in accredited facilities and to all PhilHealth members (not only the poor) making use an enhanced maternity care package, a normal delivery package and a newborn care package. In 2013, case-rate reimbursement was extended to all treatments and procedures in all accredited (not only government) facilities.<sup>18,19</sup> The case rates were revised in 2015, and again in 2016.<sup>20,21</sup>

Coverage was deepened by providing catastrophic cover for treatment of certain high-cost conditions, referred to as *Case Types Z*, in pre-authorized and contracted facilities.<sup>22–24</sup> Initially (2012), there were only four such conditions: acute lymphocytic leukemia in children, early-stage breast cancer, low to intermediate prostate cancer, and end-stage renal disease requiring kidney transplant. By 2017, there were 16 conditions in the catastrophic cover benefit package, which is subject to the NBB rule.<sup>25–30</sup>

From 2013, patients and pregnant women who were not on the national list of poor households but who were assessed as poor by social workers at government hospitals could be offered the opportunity to enroll at the time of seeking.<sup>31,32</sup> Point-of-care enrollment was further strengthened by deploying registered nurses in government hospitals and accredited facilities to provide assistance with enrollment and to inform existing members of benefit entitlement and claim procedures.<sup>33</sup> These nurses have a significant institutionalized role in ensuring that case rates, NBB, Type Z benefits and point-of-care enrollment are all implemented effectively, such that members enjoy the cover to which they are entitled.<sup>34</sup>

## Data

We used data from the NDHS undertaken by the Philippine Statistics Authority in 2013 and 2017. In each year, stratified (urban/rural) two-stage random

sampling produced a sample that was nationally representative. The survey comprised a household questionnaire answered by the head of household or spouse, if available, and an individual questionnaire directed to all females aged 15–49 years in each household.<sup>35,36</sup> We used data from the household questionnaire.

We used data from the health-care utilization module to measure payments for inpatient-related care. Inpatient care refers to an overnight stay in hospital of any household member in the last 12 months. For the last overnight stay of each person, the respondent was asked how much was paid to the hospital. They were also asked how much, if anything, was paid for medicines and laboratory tests used while in hospital but obtained from another provider. We examined the two payments separately because the extent of PhilHealth cover differs between them. For both payments, the respondent was asked the total amount paid, as well as the amounts paid by PhilHealth and by the household out of pocket. Since we were interested in the cover effectively delivered by PhilHealth, we calculated the total payment as the sum of payments made by PhilHealth and by the household, aggregated over all household members with an inpatient stay, and focused on how this total was split between PhilHealth and the household. We checked consistency of this calculated total with the total payment reported directly by the respondent. Payments from sources other than PhilHealth and the household were negligible. We did not examine payments for outpatient care because the respondent was not asked to distinguish the OOP amount from the amount paid by PhilHealth.

We used membership of PhilHealth programs reported by the respondent for each person in the household to identify a household as being covered by PhilHealth if its head or their spouse was a member of any program. Cover extends from the member to all relatives in the household except any adult (above 21 years old) who is not their spouse. In addition to PhilHealth cover, we categorized households using data on age, reported receipt of a conditional cash transfer—the Pantawid Pamilya Pilipino Program (4P)—that targets poor households containing infants, school-aged children, and pregnant women, and a wealth index. The latter, which was supplied with the public use NDHS files, was constructed from principal components analysis of household assets and living conditions.

## Method

The household was the unit of all analyses. We estimated PhilHealth coverage rates in 2013 and 2017 for the whole population and for sub-populations. For the latter, we distinguished households with at least one person aged 60 years or older—the threshold for qualifying for

the PhilHealth Seniors Program—from households without any senior. We also separated households by receipt of 4P benefits, which brings automatic qualification for the PhilHealth Indigent Program and protection under the NBB rule from charges in excess of case rates. Receipt of 4P benefits is sufficient but not necessary to qualify for the Indigent Program. We used the wealth index to identify other poor households that were potential beneficiaries of this program, or of the Sponsored Program that provides cover (and NBB protection) to households not on the national list of the poor but that are considered by local government, or some other sponsor, to be poor. We separated the poorest 40% of households according to this index from the rest.

To assess how effectively PhilHealth insures the costs of inpatient-related treatment, we restricted attention to households with any overnight stay in hospital in the last year. We estimated the mean total payment in both 2013 and 2017, the mean amount paid OOP by households, as well as the mean amount, and share of the total, paid by PhilHealth. To gauge the extent to which the attempts to deepen PhilHealth coverage, and to make it more effective, may have contributed to observed changes in amounts and shares paid by PhilHealth, over and above any contribution from extensions of population coverage, we repeated the analyses using only households with PhilHealth cover in each year. For these households, any change in the contribution of PhilHealth to payments for inpatient-related care could only have come from deeper, more effective coverage. A caveat is that our comparison of averages could potentially be confounded by any change in the composition of households with PhilHealth coverage.

We used local polynomial smoothing regression<sup>37</sup> to illustrate how the proportionate contribution of PhilHealth to payments for inpatient-related care varied with the magnitude of the payment. Subjective to the

obvious limitations of the descriptive analysis, this allowed assessment of whether the introduction of catastrophic cover of Type Z Cases may have been effective in increasing insurance of particular high-cost treatments. To assess whether PhilHealth benefits were predominantly received by poorer households, or richer ones, we used concentration curves<sup>38</sup> to trace the incidence of PhilHealth benefits in relation to location in the distribution of wealth. We tested for dominance of the 2017 concentration curve over the 2013 curve by comparing the ordinates of the curves at 19 evenly spaced points from the 5th percentile to the 95th percentile with adjustment for multiple comparisons.<sup>39</sup> We also estimated concentration indices<sup>38</sup> to summarize the extent to which the distribution of PhilHealth benefits were pro-poor or pro-rich.

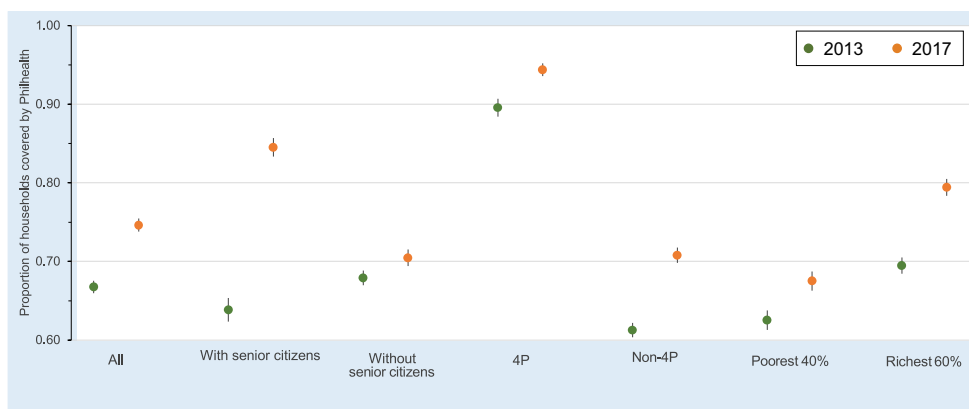
Sample weights were applied in obtaining all estimates, and inference was conducted with adjustment for stratification and for clustering at the primary sampling unit level.

## Results

### Expansion of Population Coverage

Figure 1 shows that the fraction of households covered by PhilHealth increased from around two thirds in 2013 to around three quarters in 2017. In both years, the proportion of individuals with PhilHealth cover was lower because coverage does not extend to all household members (Appendix Table A2).

The coverage rate increased for all groups of households (Figure 1). Most notably, due to the introduction of the Seniors Program in 2014, coverage rose by over 20 percentage points (pp) for households with any senior citizen; reaching almost 85% in 2017. The increase was only 2.5 pp for households without seniors.



**Figure 1.** Proportion of households covered by National Health Insurance Program (PhilHealth) For sample and group sizes, see Table A2 in the Appendix.



In 2013, already about 90% of 4P beneficiary households were covered, compared with only about 61% of the non-4P households. By 2017, coverage had risen in both of these groups. The greater increase among non-4P households is due to the greater preponderance of households with seniors in this group (Appendix Table A2). While the coverage rate of 4P households was already high in 2013, the picture given of initial coverage of the poor is very different using the wealth index to identify the poor. Only 63% of the poorest 40% of households were covered by PhilHealth in 2013, compared with over 70% of the richest 60%. Over the next five years the coverage rate of the richest 60% went up by nearly twice as much as the increase in coverage of the poorest 40%. Since the 4P targets households with children and pregnant women, these figures suggest that PhilHealth coverage was substantially lower among poor households that did not have these characteristics.

### Payment for Hospital Inpatient Care

Figure 2a shows amounts paid to hospitals for inpatient care averaged over all households that had at least one inpatient admission in the last 12 months (Appendix Table A3). These are total amounts aggregated over OOP payments by households and reimbursements by PhilHealth. The mean payment rose from around 18,200 PHP in 2013 to about 21,600 PHP in 2017 (50 PHP  $\approx$  1 USD), an increase of almost 20%. In both years, mean payments were substantially larger for households that included seniors, did not benefit from the 4P conditional cash transfer and were among the richest 60%. The mean payment increased in all subgroups.

Figure 2b shows average household OOP payments to hospitals for inpatient treatment. For all households with at least one inpatient admission in the last year, and for subgroups of them, with the exception of those containing seniors, there was no substantial or significant change in the mean OOP payment between 2013 and 2017. Given the marked increase in total payments to hospitals for inpatient care, this implies a substantial reduction in the share of the hospital bill paid by households OOP (Table A3). Figure 2c confirms that PhilHealth contributed most to the increase in payments for inpatient care, and Figure 2d reveals the consequent steep increase in the fraction of the cost paid by PhilHealth. Averaged over all households with an inpatient admission, the PhilHealth payment increased by two thirds, and the fraction of the cost paid by PhilHealth rose by 21 pp. This fraction increased for all subgroups, and reached close to 60% of the total hospital

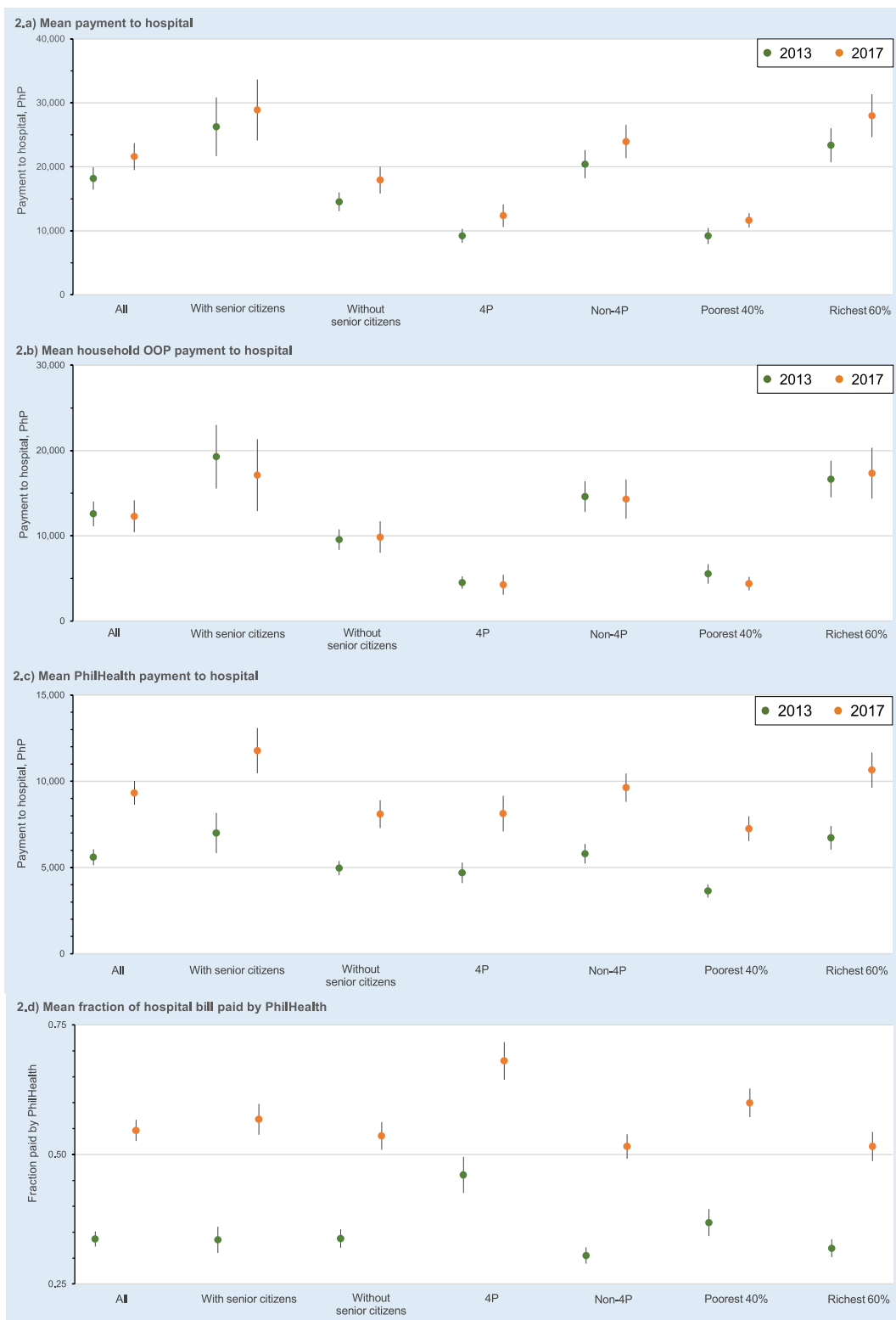
bill for households with seniors, with 4P beneficiaries and among the poorest 40%.

In Figure 3 we limited the sample to households with PhilHealth coverage (and, as in Figure 2, with a hospital admission in the last year). This did not substantially change the pattern of results, which suggests that the increase in the absolute and relative payments made by PhilHealth for hospital inpatient care was not primarily attributable to extensions of population coverage. In this restricted sample, the mean household OOP payment fell by 7.4%, while the mean payment made by PhilHealth increased by 46% and the fraction of the hospital bill covered by PhilHealth increased by 17.2 pp. Conditional on being covered by a PhilHealth program, the effective coverage of inpatient costs appears to have increased substantially. For all subgroups of households with PhilHealth cover, the household OOP payment fell or remained approximately constant, while the fraction of the hospital bill paid by PhilHealth increased. By 2017, that fraction had reached around 69% for 4P households and the poorest 40% of households, while it was 59% for households with seniors.

The results indicate deeper, more effective coverage that could possibly have resulted from effective implementation of the policy initiatives described in Section 2. The introduction of catastrophic cover of high-cost Type Z cases would be expected to have increased the fraction of extremely large hospital bills that PhilHealth reimburses. Other initiatives, such as the normal delivery benefit package, may have impacted at lower costs. Figure 4, which was drawn using local polynomial smoothing,<sup>37</sup> plots the fraction of the hospital bill paid by PhilHealth at percentile ranks of such bills. For each year, the solid line traces the fraction for all households with an inpatient admission, while the dashed line is for the subset of such households with PhilHealth cover.

In 2013, the fraction paid by PhilHealth peaked at about 43% around the 60th percentile of the hospital bill distribution. In this year, PhilHealth covered only around 20% of very low hospital bills and around 34% of the largest bills. The fraction covered by PhilHealth was higher when the average was taken over households with PhilHealth cover, which is inevitable. There is little divergence between the averages at the top of the distribution, which indicates that almost all of those that incurred very large costs were covered by PhilHealth.

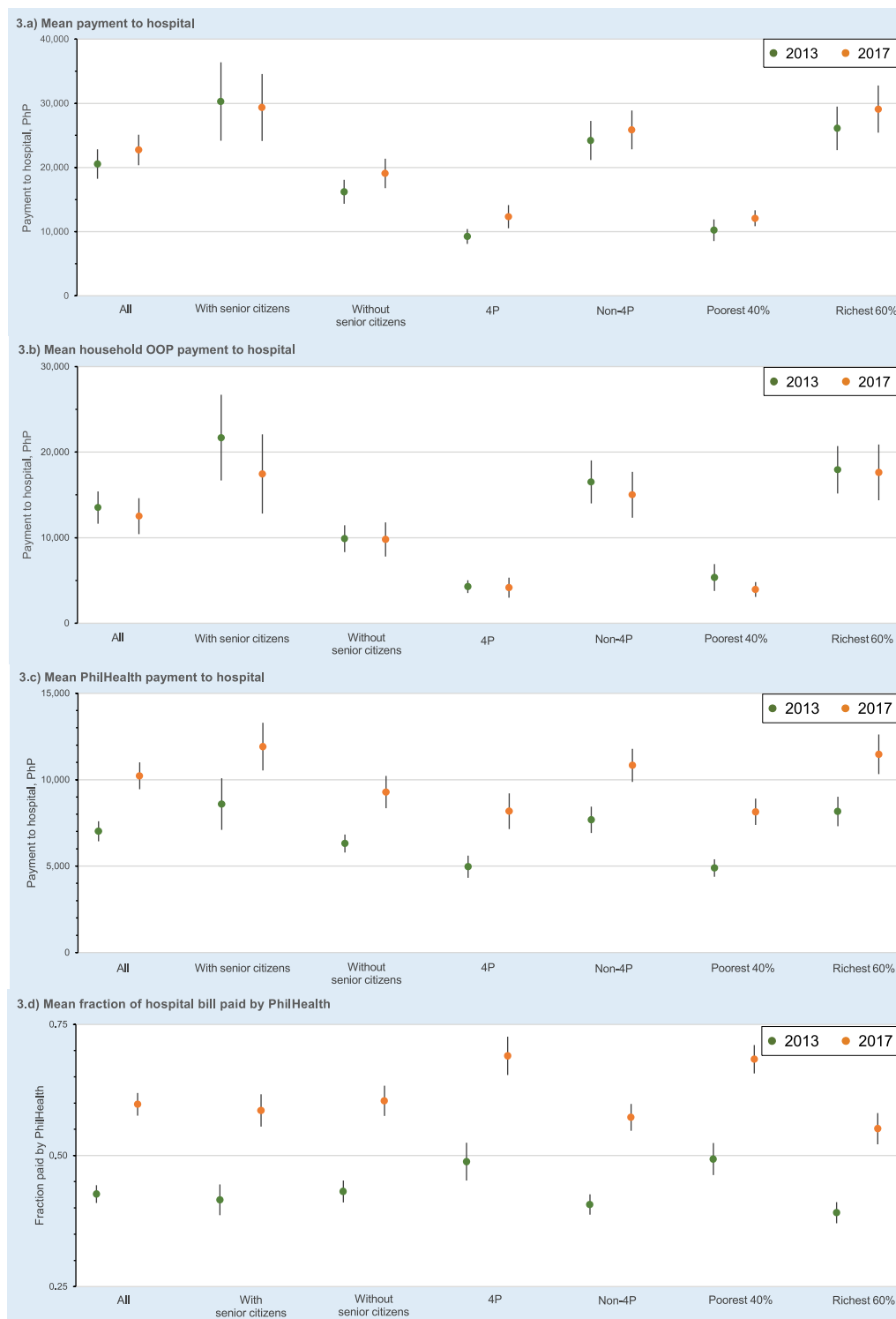
The fraction paid by PhilHealth shifted up in 2017 throughout the distribution, but to a much



**Figure 2.** Payments to hospitals for inpatient care  
 Means are taken over households with any inpatient admission in the last 12 months. Payments are aggregated over all household members with any inpatient admission. For sample and group sizes, see Table A3 in the Appendix.

greater extent in the bottom third than at the top. The peak shifted down in 2017, such that the fraction paid by PhilHealth reached a maximum of

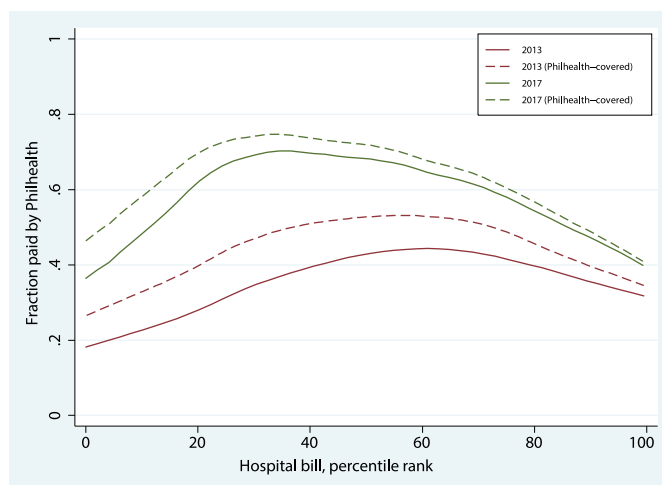
about 70% at around the 35th percentile. At the very top of the distribution, the fraction paid by PhilHealth increased by only around 6–7 pp. These



**Figure 3.** Payments to hospitals for inpatient care, households with PhilHealth cover  
Means are taken over households with any inpatient admission in the last 12 months that were covered by a PhilHealth program. Payments are aggregated over all household members with any inpatient admission. For sample and group sizes, see Table A3 in the Appendix.

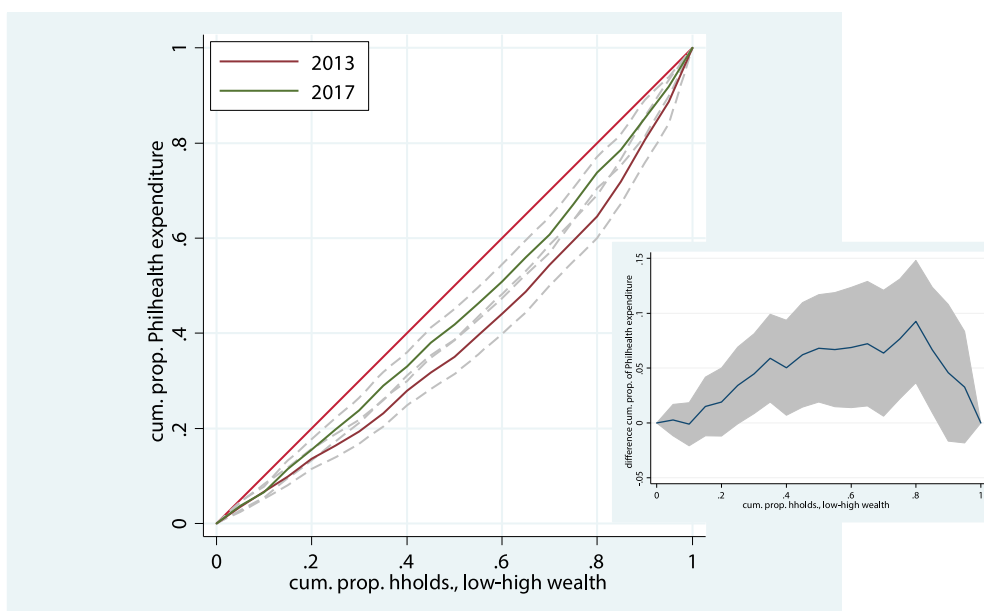
results suggest that the extension of benefits to Type Z Cases may not have been particularly successful in deepening coverage of the most catastrophic costs.

Figure 5 shows concentration curves of payments made by PhilHealth to hospitals for inpatient care by wealth index rank. For both years, the concentration curves lie significantly below the diagonal, indicating



**Figure 4.** Fraction of hospital bill paid by PhilHealth by hospital bill rank

Local polynomial smoothing regression of fraction of hospital bill paid by PhilHealth on percentile rank in hospital bill distribution. Epanechnikov kernel of degree 0 with 0.11 bandwidth. Solid lines indicate all households with any inpatient admission for which there was a non-zero reported payment to a hospital. Dashed lines indicate the subsets of such household with PhilHealth cover. For sample size, see Table A3 in the Appendix.



**Figure 5.** Concentration curve of PhilHealth payments to hospitals for inpatient care

In the main figure, the x-axis show the cumulative proportion of households ranked from poorest (left) to richest (right) according to the wealth index. y-axis shows the cumulative proportion of PhilHealth payments to hospitals for inpatient care. Solid lines show the concentration curves. Dashed lines indicate 95% confidence intervals. Only households with any inpatient admission in the last 12 months are used. The insert shows the vertical difference between the 2017 and the 2013 concentration curves, and the 95% confidence interval for this difference. For sample size, see Table A3 in the Appendix.

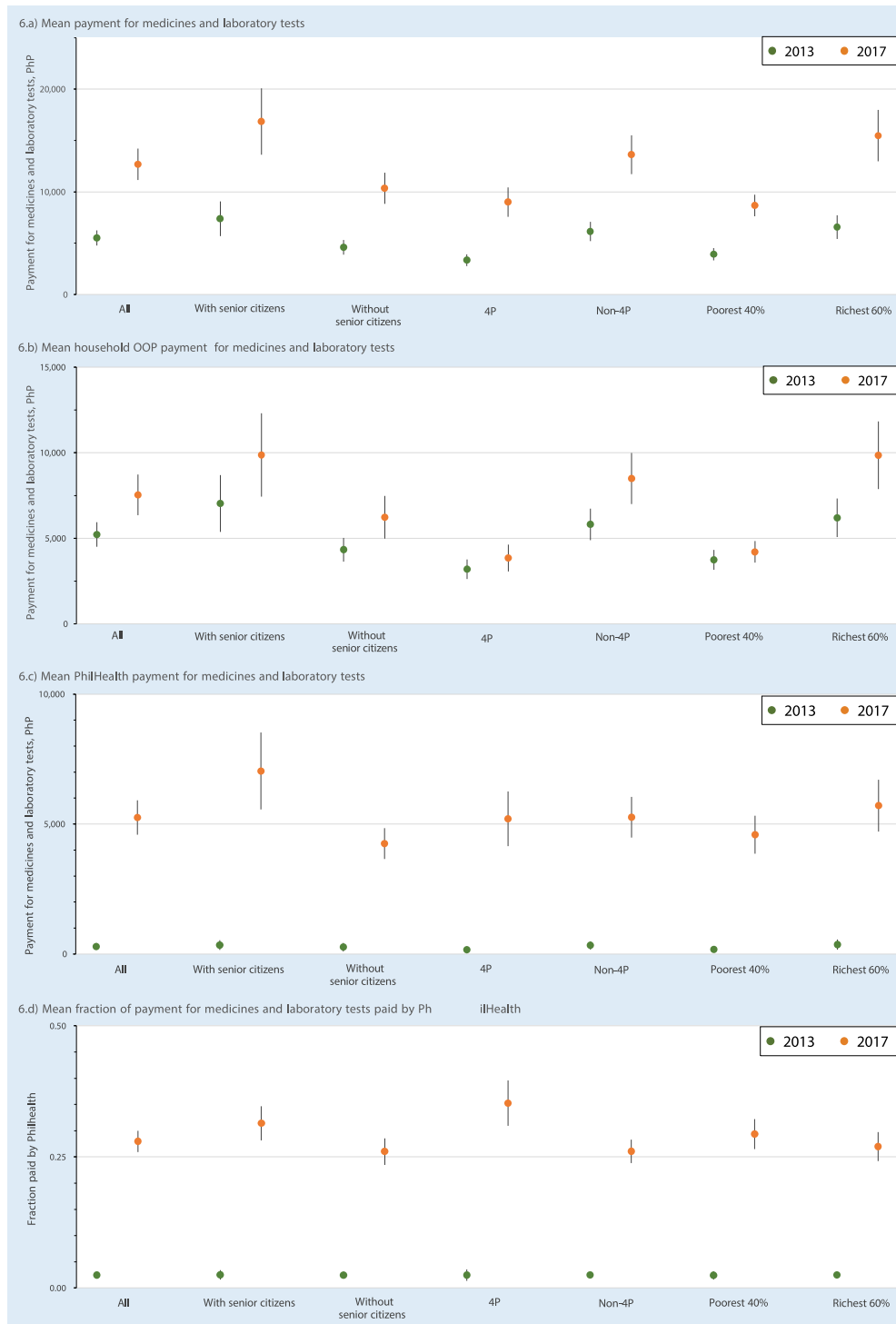
that these PhilHealth expenditures were disproportionately for treatment received by better off households. For example, in 2013, only around 27% of PhilHealth payments for inpatient care was for treatment of the poorest 40% of households. By 2017, the concentration curve

had shifted toward the diagonal throughout most of the wealth distribution. The insert, which shows the difference between the 2017 and 2013 concentration curves and the 95% confidence interval for this difference, confirms that there were significant shifts inwards, except at the bottom



and top of the distribution. A formal test confirms that the 2017 concentration curve dominates the 2013 curve, indicating that there was a significant (5% level) decrease in the

pro-rich distribution of PhilHealth benefits. The concentration index decreased from 0.2105 [95% CI: 0.1459, 0.2750] in 2013 to 0.1176 [0.0733, 0.1618] in 2017, which



**Figure 6.** Payments for medicines and laboratory tests used in inpatient care

The figure shows means of payments for medicines and laboratory tests used in inpatient treatment that are paid to providers other than the treatment hospital. Means are taken over households with any inpatient admission in the last 12 months that obtained medicines or lab tests from outside of the hospital. Payments are aggregated over all household members with any inpatient admission. For sample and group sizes, see Table A4 in the Appendix.

is also indicative of a significant ( $p$ -value = 0.0199) decrease in pro-rich inequality.

### Payment for Medicines and Laboratory Tests

In 2013, over the full sample of households with any inpatient admission in the last 12 months, the average payment for medicines and laboratory tests obtained outside of the inpatient treatment hospital was 5510 PHP ( $\approx$ 110 USD). [Figure 6a](#) shows that this average had more than doubled by 2017, by which time payments to pharmacies and laboratories for medicines and tests used in the course of inpatient treatment amounted to almost 60% of the payments made to hospitals for the treatment itself (Appendix Tables A3 and A4). Payments for medicines and lab tests were greater for seniors, non-4P beneficiaries and the richest 60% of households, and the magnitudes of the increases in such payments were larger for these groups ([Figure 6a](#)).

[Figure 6b-d](#) reveal that payments for medicines and lab tests to facilities outside of the treatment hospital were predominantly made OOP by households in 2013. In that year, PhilHealth covered only 2.4% of these costs, on average. The substantial increase in the costs of medicines and lab tests between 2013 and 2017 was largely financed by PhilHealth. On average, PhilHealth spending on medicines and lab tests increased from only 289 PHP in 2013 to 5,249 PHP in 2017 ([Figure 6c](#) and Table A4). By 2017, PhilHealth was covering 28% of the cost of medicines and lab tests used in inpatient treatment, and its payments for these items to facilities other than the treatment hospitals amounted to 56% of its payments to hospitals for the inpatient treatments (Tables A3 and A4).

The increase in payments made by PhilHealth for medicines and lab tests—both absolutely and relative to OOP payments for these items—was observed for all subgroups. By 2017, the relative contribution of PhilHealth to the financing of these costs was largest for seniors, 4P beneficiaries and the poorest 40% of households ([Figure 6d](#)). Restricting attention to households covered by PhilHealth in each year did not change the findings that spending on medicines and lab tests related to inpatient treatment increased substantially between 2013 and 2017, and the increase was mostly due to a large jump in the contribution of PhilHealth (Table A4 and [Figure A1](#)). This suggests that the latter was not primarily due to the increase in population coverage.

The fraction of the cost of medicines and lab tests that was covered by PhilHealth increased most at higher levels of these costs (Appendix [Figure A2](#)). In 2017, the fraction peaked at about

54% around the 75<sup>th</sup> percentile of these costs. As with payments to hospitals for inpatient treatment, PhilHealth payments for medicines and lab tests were pro-rich in 2013 and became substantially more equally distributed in relation to wealth by 2017 ([Figure A3](#)). The estimate of the concentration index decreased from 0.3484 [0.0102, 0.6865] in 2013 to 0.0741 [-0.0245, 0.1727] in 2017, although the change is not significant ( $p$ -value = 0.1270).

### Discussion

Our analysis suggests that the Philippines National Health Insurance Program may well have been progressing toward UHC in the years leading up to the 2019 Universal Health Care Act that extended coverage to all Filipinos. Between 2013 and 2017, nationally representative survey data indicate that the share of hospital inpatient costs covered by PhilHealth increased two thirds. By 2017, PhilHealth was paying a larger fraction of the average hospital bill for inpatient care than households were paying out of pocket.

This substantial increase in the insurance of inpatient expenses does not appear to have resulted entirely, or even mainly, from extensions of coverage to the poor and elderly populations. The increase was evident even among households covered by PhilHealth in each year, and the increases were only slightly larger for elderly and poor households than for non-elderly and non-poor households. This points to other policies that may have made the insurance households held more effective in shielding them from the cost of inpatient treatment. Paying hospitals at sufficiently generous case rates may have reduced the incentive for providers to charge patients in excess of the reimbursement they could claim from PhilHealth. Prior to the introduction of case rates, providers were paid fee-for-service (FFS) but with reimbursement ceilings. On average, the proportion of the cost paid by PhilHealth was in the range 25–30%. While there is no good evidence to establish that the case rates were more generous than the previous reimbursement ceilings, the case rates were first estimated on the basis of the total bills filed by the hospitals. We would therefore expect the case rates to be closer to the true costs than to the FFS reimbursements.

In addition to the impact of case rates, a new rule prevented government hospitals from charging poor patients and women giving birth in excess of the reimbursement paid to PhilHealth for the treatment of these patients. The extension of the benefit package to cover catastrophic costs of high-cost treatments may have

contributed to the relative increase in prepayment, although we did not find that the PhilHealth relative contribution increased most at the top of the distribution of inpatient costs.

We found that PhilHealth payments increased even more for medicines and laboratory tests that were ordered for inpatient treatment but provided by pharmacies and diagnostic centers outside of the treatment hospital. In 2013, PhilHealth coverage of such costs was near negligible, while it had risen more than tenfold to 28% by 2017. During this period, it became possible for all those covered by PhilHealth programs to claim costs of medicines and lab tests used for inpatient treatment but not supplied by the treatment hospital. Presumably, this explains part of the steep increase in PhilHealth reimbursement of such costs. From the insurance perspective, the increase in the share of medicine and lab test costs paid by PhilHealth is welcome. From the cost containment perspective, the trend is potentially of concern. The value of the medicines and lab tests ordered needs to be set against the costs. Hospitals are incentivized to constrain prescription of medicines and referral to independent laboratories for tests since any related patient costs that PhilHealth reimburses are deducted from the case rate paid to the hospital.

In addition to the increase in insurance of inpatient-related costs provided by PhilHealth, our analysis revealed that there has been a substantial reduction in the pro-rich incidence of PhilHealth inpatient benefits that previous research identified as a major limitation of the program.<sup>40</sup> This does not appear to have arisen from the increase in the proportion of the poor who are covered. Nor is it simply due to total hospital bills increasing more for poorer than for richer patients (Figure 2a and Figure 3a). The concentration curve for the total hospital bill apparently became less pro-rich over the period, but not significantly so and not to the same extent as the distribution of PhilHealth payments of inpatient costs (Figure A4). The NBB rule preventing hospitals from charging poor patients in excess of case rates presumably has contributed. Effective implementation of this policy would have increased the fraction of the treatment cost paid by PhilHealth by more for poor patients. Placing social workers and nurses in hospitals to enroll poor patients in PhilHealth, and to make them aware of their benefit entitlements and how to claim them may also have helped increase the share of PhilHealth payments for inpatient treatments that go to the poor. It is also possible that poorer patients shifted toward treatments that were more generously covered by PhilHealth, although we cannot confirm this.

The paper has limitations. Most important, the analyses are descriptive. We describe how household and PhilHealth payments for inpatient care have changed in a period during which policy efforts were made to increase the extent of population coverage, the depth of service and financial coverage, and the effectiveness of the coverage delivered. But it is not possible to infer policy effects from this analysis. Due to data constraints, we limited attention to inpatient care. Despite efforts and some progress in broadening the benefit package to cover outpatient and primary care, a major limitation of PhilHealth is that it remains largely focused on insurance of inpatient cost. While the data do not allow us to estimate the fraction of the costs of outpatient costs paid for by PhilHealth, we can estimate the proportion of outpatients that use PhilHealth to pay for at least some of the cost of care. That proportion is meager. In 2013, only 0.7% of households that used outpatient care in the last 30 days ( $n = 4575$ ) had some contribution to the cost from PhilHealth. By 2017, the proportion had risen to only 1.4% ( $n = 5444$ ). Admittedly, these are underestimates of the support given to outpatient and primary care by PhilHealth and the Department of Health since they do not reflect financing of care provided for free in health clinics, principally to poor patients. Still, there is a risk that progress in making PhilHealth coverage of inpatient costs more effective may further steer patients away from outpatient and primary care and so lower the efficiency of the health system overall. Consistent with this, analysis of the NDHS data revealed that the probability of using any outpatient service in the previous month fell from 10.5% in 2013 to 7.5% in 2017, while the probability of using inpatient care fell more modestly from 4.7% to 4.2%. These trends certainly do not confirm that increased coverage of inpatient costs has tilted the balance of care away from outpatient services. But they do suggest that there has been little progress in rebalancing in the opposite direction. To deliver UHC on a budget, the next challenge should be to strengthen effective coverage of outpatient and primary care. The 2019 UHC Law extension of the outpatient benefit package to all PhilHealth members is a promising move in that direction.

Household OOP payments, which are mainly for medicines prescribed to outpatients, were still 48% of current health expenditure in 2019, despite the share having fallen by 5.4 pp from 2009.<sup>10</sup> The substantial increase in PhilHealth coverage of inpatient costs will have fed through to a much more modest impact on households' overall exposure to health-care costs. According to conventional indicators, there has been no improvement in financial protection: between 2012 and 2015, the estimated mean fraction of the household budget spent OOP on health care remained around 2.6%, the

percentage of households that incurred “catastrophic OOP payments” exceeding 10% of their total expenditure increased slightly from 6.1% to 6.3%, and the percentage of individuals that fell below a poverty line of 3.20 USD per day after deducting OOP payments increased from 1.2% to 1.4%.<sup>41</sup> This study presented a different perspective on financial protection by focusing on the proportion of health-care costs that were prepaid, rather than looking at OOP payments relative to the household budget. An advantage of the approach taken is that it assesses health financing policy through indicators that are directly influenced by it. Any increase in the coverage may have only muted effects on the conventional financial protection metrics because these measures also respond to wider changes in the economy that impact on household budgets and their proximity to poverty. That said, an important caveat to this study is that it did not examine household OOP payments for outpatient care and related medicines that account for most of the uninsured medical expenses in the Philippines.

## Conclusion

Achieving UHC requires a lot more than legislating health insurance entitlement for an ever larger share of the population. While full population coverage is the flagship of UHC, seemingly more mundane policies concerning benefit package content, patient charging, provider payment, and making people aware of their entitlements and how to claim them are plausibly key to making coverage effective. Our analysis suggests, although it certainly does not confirm, that such policies may have helped fill some potholes on the Filipino road to UHC.

## Disclosure of Potential Conflicts of Interest

No potential conflict of interest was reported by the authors.

## Funding

This work was supported by the Schweizerischer Nationalfonds zur Förderung der wissenschaftlichen Forschung [Grant 400640\_160374].

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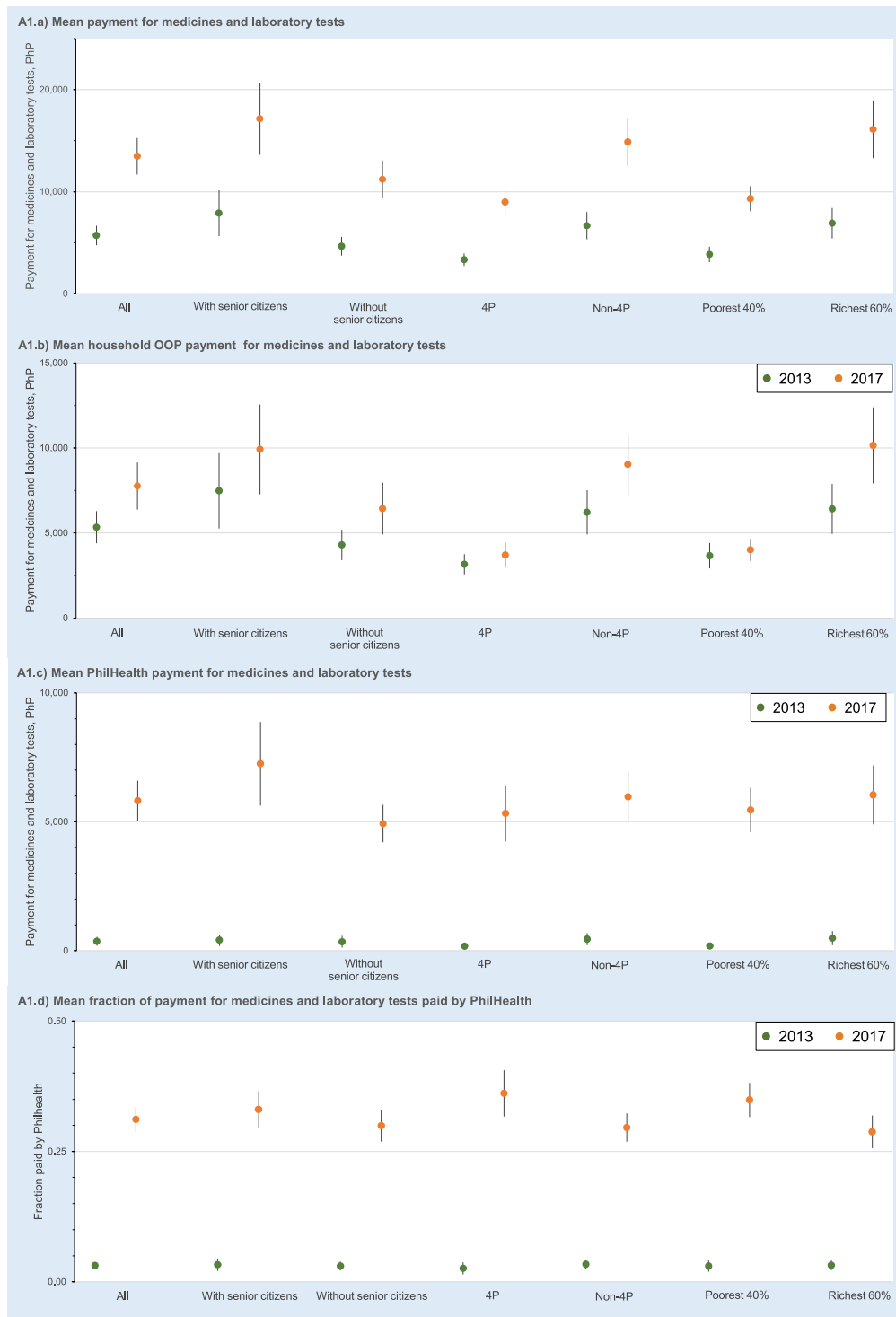
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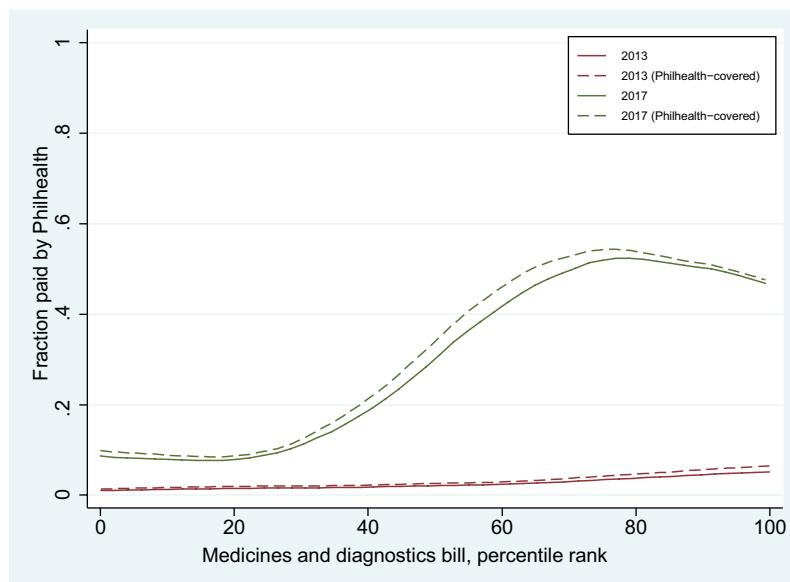
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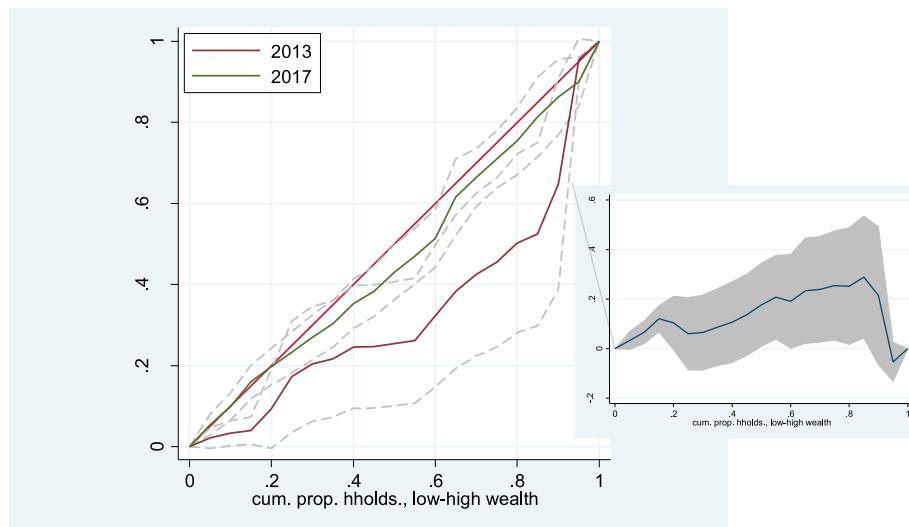


**Figure A1.** Payments for medicines and laboratory tests used in inpatient care, households with PhilHealth cover  
 The figure shows means of payments for medicines and laboratory tests used in inpatient treatment that are paid to providers other than the treatment hospital. Means are taken over households covered by a PhilHealth program that had any inpatient admission in the last 12 months and that obtained medicines or lab tests from outside of the hospital. Payments are aggregated over all household members with any inpatient admission. For sample and group sizes, see Table A4 in the Appendix.

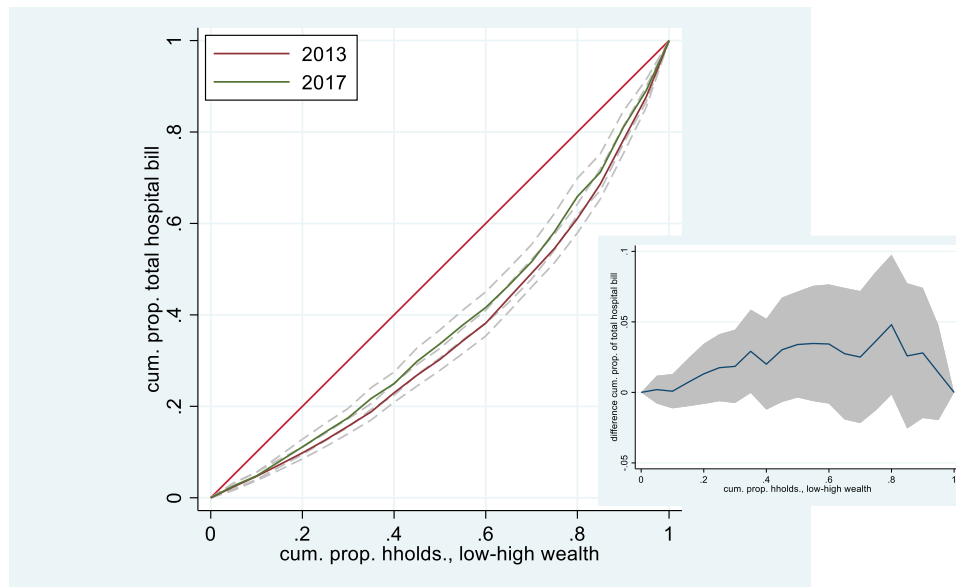




**Figure A2.** Cost of medicines and laboratory tests used in inpatient care—fraction paid by PhilHealth by percentile rank of cost  
Local polynomial smoothing regression of fraction of medicines and lab tests costs paid by PhilHealth on percentile rank in cost distribution. Epanechnikov kernel of degree 0 with 0.15 bandwidth. Solid lines indicate all households with any inpatient admission for which there was a non-zero reported payment for medicines and lab tests. Dashed lines indicate the subsets of such household with PhilHealth cover. For sample size, see Table A4 in the Appendix.



**Figure A3.** Concentration curve of PhilHealth payments for medicines and laboratory tests used in inpatient care  
In the main figure, the x-axis shows the cumulative proportion of households ranked from poorest (left) to richest (right) according to the wealth index. y-axis shows the cumulative proportion of PhilHealth payments for medicines and laboratory tests used in inpatient care. Solid lines show the concentration curves. Dashed lines indicate 95% confidence intervals. Only households with any inpatient admission in the last 12 months are used. The insert shows the vertical difference between the 2017 and the 2013 concentration curves, and the 95% confidence interval for this difference. The 2013 concentration curve is imprecisely estimated because PhilHealth payments for medicines and lab tests were relatively rare in that year. Dominance of the 2017 curve over the 2013 curve is confirmed at the 5% level of significance. For sample size, see Table A4 in the Appendix.



**Figure A4.** Concentration curve of total hospital bill

In the main figure, the x-axis shows the cumulative proportion of households ranked from poorest (left) to richest (right) according to the wealth index. y-axis shows the cumulative proportion of total hospital bill. Solid lines show the concentration curves. Dashed lines indicate 95% confidence intervals. Only households with any inpatient admission in the last 12 months are used. The insert shows the vertical difference between the 2017 and the 2013 concentration curves, and the 95% confidence interval for this difference. For sample size, see Table A3 in the Appendix.