

## Evaluating Primary Care Providers' Compliance with Special Capitation in Indonesia's National Health Insurance

Rahma Anindita<sup>1\*</sup>, Ari Dwi Aryani<sup>2</sup>, Rahmad Asri Ritonga<sup>3</sup>, Aditya Darmasurya<sup>4</sup>, Tedo Arya Trisnanto<sup>5</sup>, Pranatawati Nur Tsani<sup>6</sup>, Bayu Yudanto<sup>7</sup>, Trisnasari<sup>8</sup>

<sup>1-8</sup> BPJS Kesehatan, [rahma.anindita@gmail.com](mailto:rahma.anindita@gmail.com)

**Abstract:** To increase the effectiveness of the special capitation payment scheme implemented by the primary care providers (PCPs), to expand health service coverage and to provide additional incentives for the health workforce in remote areas, a commitment agreement with the primary care provider has been established. However, the PCP's achievement after implementing the commitment agreement was unclear. Hence, this study aims to analyse the commitment and achievements of the PCP in the special capitation payment scheme in 2021 and 2022. About 178 PCPs in 2021 and 191 PCPs in 2022 across Indonesia were included in this descriptive analysis using the quantitative method. The results reflected that special capitation payments accompanied by commitment agreements might influence increasing the capacity, access, and quality of health services. There was a 58% increase in the number of PCPs that achieved all PCP commitment indicators for capitation recipients in 2022 compared to 2021. The highest commitment indicator attained by PCP recipients of special capitation is the sending of health personnel. The quantity of capitation rates received, the simplicity of using capitation funds, the accessibility of physicians and other health professionals, and the assessment of service commitment accomplishments, which will affect payment, all influence the achievement of commitment indicators.

**Keywords:** Capitation Payment; Primary Care Provider; Commitment Indicator; Remote Area

### INTRODUCTION

Ensuring everyone has access to the medical care they need (referred to as service coverage) (Hogan, D.R, 2018), including services to promote better health, prevent illness, and provide treatment, rehabilitation, and palliative care, is one of the objectives of Universal Health Coverage (UHC) (McIntyre D, 2016), while at the same time ensuring people who use those services do not suffer undue financial hardship (Boerma T, 2014).

Low—and middle-income countries implemented social insurance schemes to achieve these goals, some of which had already successfully achieved UHC (Xu M, 2021). The positive effects of this system are seen in increased healthcare utilisation (Joshi R, 2020), improved health quality

(Gebu T, 2018), healthcare expenditure under SHI coverage (Agustina R, 2019), and decreased out-of-pocket payment (OOP) (Sriram S, 2020).

As a low-middle-income country with archipelagic geography, Indonesia has been attempting to increase access to healthcare services for those who need them, particularly in remote areas. A single-payer social health insurance scheme (called JKN), which has been implemented since 2014, is an endeavour of the Indonesian government to provide social protection for all citizens, adopted on the equity principle and supervised by BPJS Kesehatan. This principle ensures that each of the JKN participants has an equal right to obtain the health care services needed, regardless of the amount of the contributions paid. Nevertheless, providing essential healthcare services in remote areas remains a concern.

In response to the issue of healthcare service necessities in remote areas, specifically at the primary care level, BPJS Kesehatan established a capitation payment scheme for remote and very remote area primary care providers. This payment scheme was addressed to compensate the primary care providers to reach out to the JKN participants who lived in areas with difficult access geographically and the primary care providers who covered an extensive area. Further, special capitation is part of the incentives given to the health workforce willing to be placed in remote and very remote areas. In the special capitation payment scheme, the rate given is IDR 10 thousand per capita for the remote primary care provider with a medical doctor and IDR 8 thousand per capita for the remote primary care provider without a medical doctor, with a minimum of JKN participants registered, which is about 1 thousand participants.

According to the BPJS Kesehatan data from 2014 to 2022, about IDR 752.2 billion had been paid by BPJS Kesehatan for the special capitation payment scheme given to 202 eligible primary care providers by December 2023. However, a previous study related to the effectiveness of special capitation payments for remote, border, and island areas (Hendratini Y, 2018) revealed that the special capitation payment scheme has no significant association with the increase in visitation rate or efforts to provide a medical doctor for the primary care provider recipients of special capitation. This indicates the need for better monitoring and evaluation of this program.

Arranging a set of performance indicators for the primary care providers who received the special capitation payment scheme was expected to achieve the main objective of improving access to health care services needed for UHC (Hendratini Y, 2018). Several indicators included the commitment to improving the provision or addition of health workforce, facilities, and infrastructure; sending health workforce; increasing the visitation rate; and increasing the registration of Prolanis (a program for diabetes type 2 patients treated at the primary care level), which was mutually agreed upon between the BPJS Kesehatan and the primary care providers as written in the yearly cooperation agreement since 2021. After the commitment implementation, the

evaluation of the primary care performance in the special capitation payment scheme is needed. Thus, this study analyses the commitment indicators and achievement of the primary care provider who received special capitation payments.

## METHOD

This is a cross-sectional study utilising secondary data from BPJS Kesehatan. A data set of the primary care providers' performance of the committee in the special capitation payment scheme from 2021 and 2022 was taken from the BPJS Kesehatan database. A total of 369 primary care providers (PCPs) who received the special capitation payment from 2021 (178 primary care providers) to 2022 (191 primary care providers) were included in the analysis. PCPs who have received the special capitation payment in less than 6 months will be excluded due to the clarity of the impact of special capitation implementation. Details are seen in Figure 1. A descriptive-quantitative analysis was performed to describe four commitment indicators of the primary care providers. The four commitment indicators are the availability or additional health workforce; the availability of additional facilities and infrastructures; the health workforce sending to primary care providers coverage areas identified as having difficult access and receiving the special capitation payment; the increase of the visitation rate; and the increase of Prolanis participants registration.

## RESULT

After filtering the duration of receiving the special capitation to not less than 6 months, only 178 were included in the analysis of commitment achievement in 2021 from 180 PCPs who received the special capitation. Meanwhile, only 191 PCPs were included in the analysis in 2022, out of a total of 204 PCPs who received the special capitation. There were two PCPs in 2021, and the 13 PCPs in 2022 were excluded due to the length of the special capitation payment being less than 6 months (insufficient time duration to reflect the achievement).

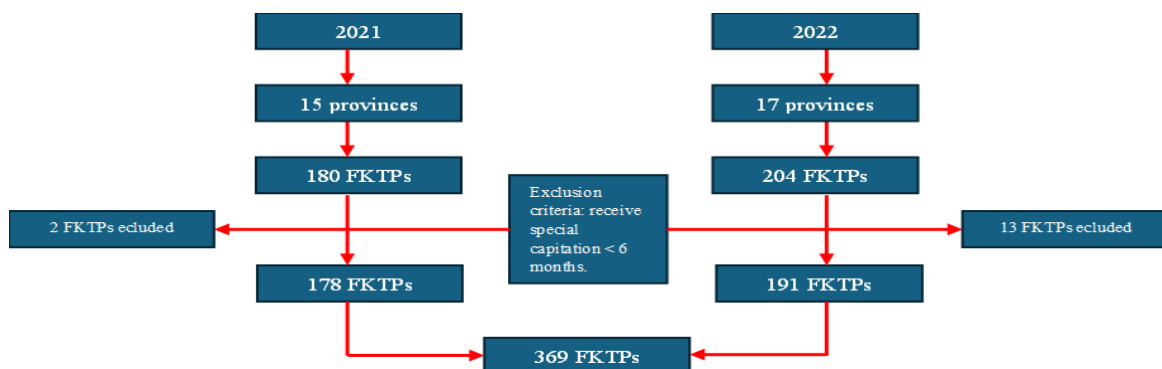


Figure 1. The flow of primary care provider sampling

According to the results (Table 1), in 2021, PCP special capitation recipients were spread in 15 provinces with 34 municipalities or cities and expanded into 17 provinces with 36 municipalities or cities by 2022. 2 additional provinces were receiving special capitation in 2022: Maluku with 8 PCPs received special capitation, and North Sumatera with 2 PCPs received special capitation. Most PCPs who received special capitation in 2021 (61 PCPs) and 2022 (63 PCPs) were concentrated in South Sulawesi. On the other hand, there were very few PCPs who received special capitation payments in North Kalimantan and South Sumatera provinces in 2021; meanwhile, in 2022, apart from these two provinces, West Sumatera was also the province with the fewest PCP special capitation recipients.

**Table 1. Provinces, municipalities or cities, and PCP special capitation recipients**

2021			2022		
Province	Number of Municipalities/ Cities	Number of PCP	Province	Number of Municipalities/ Cities	Number of PCP
Aceh	1	17	Aceh	1	12
Bengkulu	1	3	Bengkulu	1	3
Jambi	1	9	Jambi	1	8
Central Java	1	1	Central Java	1	1
East Java	2	9	East Java	2	9
West Kalimantan	2	14	West Kalimantan	2	14
North Kalimantan	1	2	North Kalimantan	1	2
Bangka Belitung Island	2	3	Bangka Belitung Island	2	3
Riau Island	1	8	Riau Island	1	8
Lampung	2	6	Lampung	2	7
West Sulawesi	4	20	Maluku	1	8
South Sulawesi	10	61	West Sulawesi	4	21
Southeast Sulawesi	3	11	South Sulawesi	10	63
West Sumatera	2	12	Southeast Sulawesi	3	15
South Sumatera	1	2	West Sumatera	2	13
			South Sumatera	1	2
			North Sumatera	1	2
<b>Total</b>	<b>34</b>	<b>178</b>	<b>Total</b>	<b>36</b>	<b>191</b>

Table 2 presents the special capitation paid by BPJS Kesehatan to the PCPs. The amount of special capitation was determined by the number of JKN members who registered in the PCPs in that area. There was a significant increase in the special capitation paid to the PCPs from 2017 (IDR 52.86 million, or equal to USD 3,368) to 2018 (IDR 127.43 billion, or USD 8.11 million). Even

though the number of PCPs in 2019 was not the highest (183 PCPs), the amount of special capitation paid was the highest (IDR 170.92 billion, or equal to USD 10.88 million).

**Table 2. The number of PCPs with special capitation amount paid by BPJS Kesehatan**

Year	Number of PCP	Special capitation payment (IDR)	Special capitation payment (USD)
2014	58	38,430,000	2,448
2015	54	17,897,000	1,140
2016	39	18,606,000	1,185
2017	123	52,869,000	3,368
2018	173	127,433,948,298	8,117,846
2019	183	170,928,543,789	10,888,555
2020	194	163,181,327,125	10,395,039
2021	180	138,473,942,000	8,821,117
2022	204	152,062,986,000	9,686,774
<b>Total</b>	<b>1,208</b>	<b>752,208,6,212</b>	<b>47,917,474</b>

Regarding the amount of special capitation received by the province, it was noted that South Sulawesi received the highest amount of special capitation (IDR 55.77 billion or equal to USD 3.49 million) in 2021, followed by East Java (IDR 21.27 billion or equal to USD 1.33 million) and West Sulawesi (IDR 15.41 billion or equal to USD 965 thousand). In 2022, the provinces that received the highest amount of special capitation were still the same as the previous year, with less difference in the total amount of special capitation paid compared to 2021. Details are shown in Table 3.

**Table 3. The amount of special capitation paid by provinces in 2021 and 2022**

2021		2022	
Province	Amount of special capitation paid (IDR)	Province	Amount of special capitation paid (IDR)
Aceh	9,791,628,000	Aceh	7,100,668,000
Bengkulu	1,274,610,000	Bengkulu	2,134,490,000
Jambi	2,395,816,000	Jambi	4,700,548,000
Central Java	519,890,000	Central Java	512,750,000
East Java	21,276,610,000	East Java	22,455,500,000
West Kalimantan	7,157,484,000	West Kalimantan	15,500,726,000
North Kalimantan	753,136,000	North Kalimantan	748,758,000
Bangka Belitung Island	1,159,070,000	Bangka Belitung Island	1,172,632,000
Riau Island	1,987,700,000	Riau Island	3,965,910,000
Lampung	7,313,160,000	Lampung	6,225,666,000
West Sulawesi	15,417,546,000	Maluku	3,492,256,000

**Table 3. The amount of special capitation paid by provinces in 2021 and 2022 (cont')**

2021		2022	
Province	Amount of special capitation paid (IDR)	Province	Amount of special capitation paid (IDR)
South Sulawesi	55,774,150,000	West Sulawesi	13,624,076,000
Southeast Sulawesi	8,947,342,000	South Sulawesi	51,958,146,000
West Sumatera	3,233,360,000	Southeast Sulawesi	6,263,142,000
South Sumatera	1,472,050,000	West Sumatera	8,805,308,000
South Sumatera	-	South Sumatera	1,959,390,000
North Sumatera	-	North Sumatera	1,443,020,000
<b>Total</b>	<b>138,473,552,000</b>	<b>Total</b>	<b>152,062,986,000</b>

As indicated in Figure 2, only a few PCPs achieved the overall commitment indicators. According to the data, in 2021, about 48 PCPs (27%) achieved only two indicators, while in 2022, about 57 PCPs (29.8%) could achieve three or four indicators. Additionally, while in 2021, there were 4 PCPs (2.2%) that had not achieved any of the indicators, in 2022, there were no PCPs that had not achieved the commitment indicators.

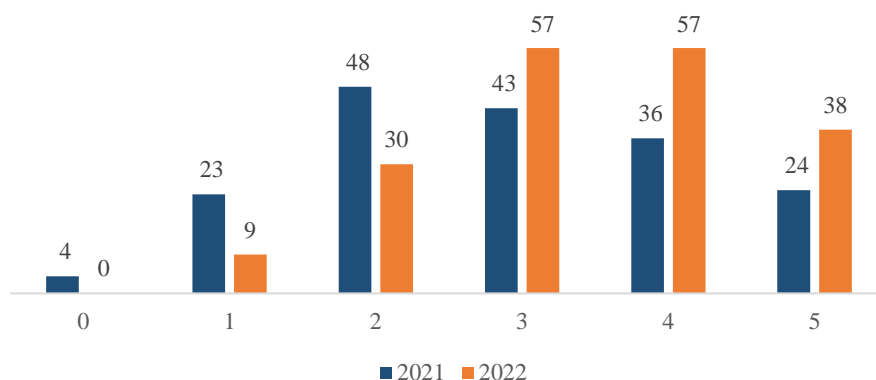
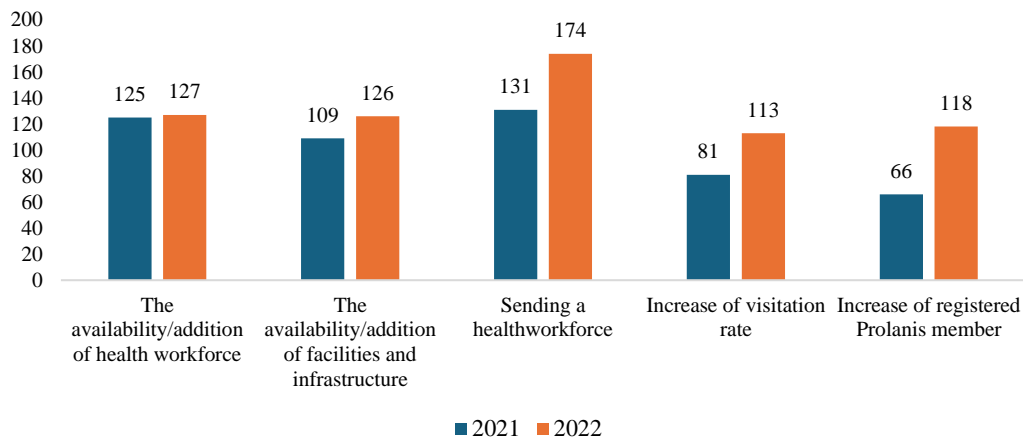
**Figure 2. Number of PCPs based on the number of commitment indicators achieved in 2021 and 2022**

Figure 3 shows that when providing or adding indicators for health workers, the number of PCPs who achieve the commitment indicators does not significantly increase, 125 PCPs in 2021 and 127 PCPs in 2022. Apart from the increase in the number of PCPs who achieve this indicator, the percentage of achievement of the total PCPs evaluated decreased (70.2% in 2021 and 66.5% in 2022).

Besides, there was an increase in the number and percentage of PCPs who achieved the provision of facilities and infrastructure indicator, from 109 PCPs (61.2%) in 2021 to 126 PCPs (66.0%) in 2022. For the indicator of sending the health workforce to the areas identified as having difficult access, there was an increase in achievement from 131 PCPs (73.6%) in 2022 to 174 PCPs

(91.1%) in 2022. About 81 PCPs (45.5%) achieved the indicator of increasing the visitation rate in 2021, and about 113 PCPs (59.2%) achieved this in 2022.

Lastly, the commitment indicators relating to increasing the number of Prolanis participants registered reflected the highest improvement. Only 66 PCPs (37.1%) achieved this indicator in 2021, but it increased to 118 PCPs (61.8%) in 2022.



**Figure 3. Number of PCP that achieve the commitment indicators 2021-2022**

Table 4 describes the commitment indicator achievement for 2022. None of the provinces with 100% PCPs achieved all the commitment indicators. Of 191 PCPs across 17 provinces, only 38 PCPs (20%) achieved 100% commitment indicators, of which the highest percentage was achieved by Aceh and Bengkulu (33% of the PCPs). There were eight provinces in which none of the PCPs achieved 100% of the commitment indicators.

As the province that received the highest amount of special capitation and the highest number of PCPs received the payment, only 32% of PCPs in South Sulawesi achieved 100% commitment indicators, which were still below Aceh and Bengkulu. In addition, 9 PCPs in 6 provinces achieved only one commitment indicator, of which Maluku took the highest proportion (4 of 9).

**Table 4. Commitment indicator achievement by the province in 2022**

Province	Number of PCPs based on the commitment indicator achievement					Total	% PCPs achieved 100%
	1	2	3	4	5		
Aceh		1	6	1	4	12	33%
Bengkulu		1	1		1	3	33%
Jambi		1	4	2	1	8	13%
Central Java				1		1	0%

**Table 4. Commitment indicator achievement by the province in 2022 (cont')**

Province	Number of PCPs based on the commitment indicator achievement					Total	% PCPs achieved 100%
	1	2	3	4	5		
East Java		1	4	3	1	9	11%
West Kalimantan		1	4	6	3	14	21%
North Kalimantan	1	1				2	0%
Bangka Belitung Island	1	1		1		3	0%
Riau Island		4	1	3		8	0%
Lampung		1	3	1	2	7	29%
Maluku	4	1	3			8	0%
West Sulawesi	1	2	1	12	5	21	24%
South Sulawesi	1	7	17	18	20	63	32%
Southeast Sulawesi		1	6	8		15	0%
West Sumatera	1	4	6	1	1	13	8%
South Sumatera		2				2	0%
North Sumatera		1	1			2	0%
<b>Grand Total</b>	<b>9</b>	<b>30</b>	<b>57</b>	<b>57</b>	<b>38</b>	<b>191</b>	<b>20%</b>

## DISCUSSION

Social health protection (SHP) in developing nations continues to be concerned with providing healthcare services in rural locations. Most SHP participants in Ghana who lived in rural regions were registered at public health facilities. Despite receiving capitation payments, those healthcare providers have failed to provide their participants with a wholesome workforce, adequate facilities, and adequate infrastructure. The Ghanaian Social Protection Board proposed the significance of having enough medical staff, facilities, and infrastructure in outlying locations (Amporfu E, 2022).

Based on the regulatory determination made by the criteria findings and scoring assessment completed by the remote and very remote healthcare facility assessment team, a Remote PCP is a primary care facility that offers nonspecialist healthcare services in remote or remote areas. Public health departments from municipalities or cities, provinces, and other departments in charge of village development make up the team. Eight criteria, including geographic difficulty, transportation access, trouble meeting essential commodities, and unstable security conditions, were used to calculate scores for the remote PCP assessment (MoH, 2015).

Contract PCPs, identified as PCPs situated in remote areas, are the PCPs that receive special capitation. In implementing JKN (social health protection in Indonesia), special capitation is the standard rate for rural and highly remote PCPs. The cost for PCPs with a medical doctor is IDR 10,000; the rate to be paid for PCPs without a medical doctor but solely with a nurse or midwife is IDR 8,000. Without taking participant risk or PCP performance into account, the special capitation



will be paid each month based on the number of participants registered, with a minimum of 1,000 participants (MoH, 2023).

The PCP's revenue increased by almost 10%, according to the examination of the effectiveness of the special capitation payment for remote locations. It does not, however, significantly affect the rise in the number of visits or the addition of physicians to the PCP, which is compensated with special capitation payments. To increase the effectiveness of special capitation in remote areas, several recommendations are made, such as setting up performance indicators for PCPs that received the payment (such as having enough doctors or other health workers on staff), calculating the frequency of visits to the village or subdistrict in the remote area, and raising the rate of visits (Hendratini Y, 2018).

Since 2014, social health protection in Indonesia (JKN) began, and a special capitation payment has been in place, provided to PCPs located in remote locations, with the number of PCPs covered growing yearly. BPJS Kesehatan made a total payment of IDR 752.2 billion. The number of PCP recipients of special capitation payments changed in 2022 due to the Regent/Mayor determination letter's validity duration. As a consequence, 13 PCPs were added to the list of PCPs that were granted special capitation; they included Maluku, North Nias Municipality in North Sumatera, Solok Municipality in West Sumatera, Toraja Utara Municipality in South Sumatera, and Maluku.

The increase in performance indicator achievements should follow the increase in PCP who receive the special capitation payment in capitation payment utilisation for remote areas. To increase the effectiveness of special capitation payments, in 2021, BPJS Kesehatan constructed a commitment agreement with special capitation PCP recipients, which will be evaluated annually as a consideration for the following special capitation payment. The evaluation of PCPs' commitment in remote areas showed that there was an increase in the number of PCPs who achieved the commitment indicator from 2021 to 2022: a 2% increase for the provision or addition of the health workforce indicator, a 16% increase for the provision or addition of facilities and infrastructure indicators, a 33% increase for the sending of the health workforce indicator, a 40% increase for the visitation rate, and a 79% increase for the Prolanis registered indicator. Among all indicators, increasing the number of Prolanis registered and increasing the visitation rate were the most complex indicators to be achieved in 2022, at 37.1% and 59.2%, respectively. On the other hand, the commitment indicator of sending a healthy workforce is the most achieved by the PCPs in 2021 (73.6%) and 2022 (91.1%).

The Community Health Center's (CHC) source of income is the capitation fund. Regarding flexibility in financing management, PCPs that have acquired special capitation are currently CHCs with a financial management system comprising regional public service agencies (BLUD) rather than non-BLUD regional public service agencies (PoIR, 2014). The PCP's service rate or CHC

operating rate will impact the special capitation rate obtained, which will also impact the PCP's performance (Kurniawan MF, 2017). The capitation plan, not BLUD CHC, has been adhering to the public health office's budget implementation papers (DPA). As a result, the capitation fund was not being used to its full potential. The capitation fund might be fully used for the service charge and operational health care services, using 60% for the service fee and 40% for operational (MoH, 2022) to maximise its use in non-BLUD CHC. The allocation fund would provide more incentives for the health workforce service charge in the remote PCP, which might entice the health workforce to agree to work there. The medical field workforce and the availability of doctors influence the special capitation PCP recipients.

The capitation budget is also utilised for preventive and promotional initiatives, such as sending medical personnel to hard-to-reach areas to increase access to healthcare services and prescription expenses. By providing these benefits, the special capitation PCP grantees could fulfil their pledge to send health workers, boost visiting rates, and increase the number of registered Prolanis members.

The commitment indicator, which affects the special capitation payment to the PCPs, also influences service commitment achievement and the financial component of the capitation received (Hidayat B, 2017). The special capitation PCP users could not use the performance-based capitation because of payment specialisation, geographic restrictions, fund availability, and data connection networks. A set of commitment indicators was developed for the special capitation PCP beneficiaries to optimise the special capitation granted. Those who failed to meet every commitment indicator will be reassessed in preparation for the subsequent capitation payment. While all PCPs achieved at least one commitment indicator in the second year of implementation, a few failed to meet all commitment indicators in the first year.

This study has several limitations. First, the study design is cross-sectional and incapable of describing the cause-effect relationship. Therefore, future studies with more comprehensive analysis are needed to find the cause of the low achievement of PCPs in the special capitation payment scheme. Second, we only performed a descriptive analysis that could not explain the association between the achievement of commitment indicators and the related variables. Lastly, even though we used national data, we did not consider the characteristics of each province. As the PCPs spread across the nation, each province might have different difficulties in achieving the commitment indicators. However, this study utilised national data, which can be generalised.

## **CONCLUSION**

The special capitation payment with commitment agreement has been seen to increase in terms of capabilities, accessibility, and the quality of health care services, which was proved by the rise of the number of PCPs who achieved all of the commitment indicators by about 58% (from 24 PCPs

in 2021 to 38 PCPs in 2022). Most PCPs achieved the sending health workforce commitment indicator of 73.6% of total PCP special capitation recipients by 2021 and 91.1% of total PCP special capitation recipients by 2022. The achievement of commitment indicators is influenced by the amount of capitation received, the ease of using capitation funds, the availability of medical doctors and health workforces, and the evaluation of service commitment, which will affect payment.

## THANK YOU

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