# Evaluation of Payment Transformation in Hawai'i Based on Physician Perspective

Kurtis Young BS; Jason Huynh BS; Kathleen Joo BS; Kelley Withy MD, PhD

### **Abstract**

The Hawai'i Medical Service Association's (HMSA) Population-based Payments for Primary Care (3PC) system has been in effect since 2016. There is limited literature regarding physician opinions on this payment transformation policy change. The objective of this study was to evaluate physician responses to a survey regarding the 3PC payment transformation system and identify methods to support physicians in Hawai'i. An online survey was sent to 2478 Hawai'i physicians and yielded 250 responses. A total of 77% respondents reported being unhappy with payment transformation, while 12.9% and 10.1% reported being indifferent and happy, respectively. Of responding physicians, 60.6% reported a decrease in overall income, whereas 24.9% and 14.5% reported no change or an overall increase, respectively. Open-ended responses were categorized into theme clusters: negative impact on primary care, increased administrative burdens, decreased quality of patient care, decreased physician reimbursement, preference to treat healthier patients, harm to private practice, harm to newer practices, ignored physician sentiments, and worsened physician shortage in Hawai'i. Respondents, especially those working in primary care, are dissatisfied with payment transformation. Future research is needed to compare the thematic clusters identified in the current study with relevant literature.

# **Keywords**

Payment transformation, capitated payment, Hawai'i, physician reimbursement

#### **Abbreviations**

3PC = Population-based Payments for Primary Care
AA = Aimed Alliance
AHEC = Area Health Education Center
FFS = fee-for-service
HMSA = The Hawai'i Medical Service Association
PCP = primary care physician
PMPM = per-member-per-month

#### Introduction

One of the key measures of patient satisfaction in health care across the United States is that a physician spends enough time with the patient. However, under the fee-for-service (FFS) model of reimbursement, primary care physicians (PCP) are incentivized to administer greater quantities of treatments rather than coordinating preventative care and care between physicians. This results in a financially driven focus to see more patients, thus establishing the conventional, shortened 15-minute clinic visits in modern medical practice. This burden impacts PCPs significantly, placing additional strain on the already shorthanded frontline of the health care system. After considering

the problems with the FFS model of reimbursement, it is appealing to prioritize the quality of patient care over the volume of patients seen.<sup>4</sup> The Hawai'i Medical Service Association (HMSA) attempted to address this issue with a new payment transformation program known as Population-based Payments for Primary Care (3PC) program. HMSA is the predominant insurance provider in Hawai'i for large group carriers (64%), small group carriers (51%), individual direct purchases (53%), and low-income markets (45%) by percent member months, defined as the number of individuals multiplied by the number of months in the policy.<sup>5</sup>

HMSA describes its 3PC program as attempting to align physician financial incentives with a patient-centered monthly model of reimbursement.<sup>6</sup> The 3PC program is designed to replace the traditional FFS payment with a capitated per-member-permonth (PMPM) payment. The PMPM base payment provides an additional 20% incentive for performing specific patient engagement measures and provides a new shared savings bonus of up to 40% for physician organizations that spend less than their historic spending. The new payment model aims to encourage patient engagement without reducing quality of care. It also attempts to encourage organization-wide incentives to reduce unnecessary utilization and decrease costs. 6 This payment model was implemented with a trial group of physicians in 2016 with additional participants being added in a staggered fashion.7 Navathe et al investigated the differences between pre-3PC years (2012-2015) and post-3PC years (2016) to assess the effectiveness of the new PMPM model of payment.<sup>7</sup> The outcomes of the study aligned with several of the objectives of the 3PC program, including improving population health and decreasing unnecessary health care spending. The 3PC system did not significantly improve the quality of health care provided by a "composite quality measure" between 2012-2015. Additionally, the authors found no statistical differences in overall costs of health care spending.<sup>7</sup> Although 3PC was considered as being successful at improving patient care,8 the findings from Navathe et al were statistically insignificant or minor, and further investigations are needed to understand the impact of payment transformation.

Payment transformation in Hawai'i is a recent change and there is limited literature available to understand the potential impact of this policy on physicians, patients, and payers. Although the 3PC system has been in effect since 2016, physician opinions regarding this policy change are largely undescribed. The

purpose of this study is to investigate the opinions of PCPs regarding payment transformation in Hawai'i. This study will provide insight into changing payment methodology, its impact on PCPs, and identify ways to support physicians' practices.

#### **Methods**

An online survey was developed to ask 4 questions regarding practice type, satisfaction with payment transformation, financial impact of payment transformation, and an open-ended question for comments by physicians. Internal Review Board (IRB) approval was obtained from the University of Hawai'i Committee on Human Subjects, #2019-583. The survey was sent to 2478 Hawai'i physicians identified through a list compiled from contact information acquired by the Area Health Education Center (AHEC)in May 2019 and 120 responses were received. Most of the initial responses were from PCPs who commented on the impact of payment transformation on their practice. In August 2019, 2 more email reminders were sent out to a subset of 897 PCPs, yielding an additional 130 responses. The survey was closed to participants in March 2020. The survey was anonymous, and participation was voluntary.

Data were analyzed using SurveyMonkey® software (Momentive, San Mateo, CA) for descriptive characteristics (percentage responding), and the qualitative data were analyzed using NVivo software (QSR International Pty Ltd., Melbourne, Australia).9 Closed-ended responses on physician satisfaction and changes in income were recorded on a 5-point Likert Scale. Participants were provided with 4 choices regarding their practice setting. These included: (1) employed, (2) private practice, (3) locums, and (4) other. Using NVivo software, the open-ended responses were categorized into 9 primary thematic clusters for describing the qualitative data. The thematic cluster count of each theme is reported, as are terms commonly used in responses. Specifically, 2 authors (K.Y. and J.H.) independently reviewed the coded individual answers. Any disagreements were resolved through discussion or through the involvement of a third author (K.J.).

#### **Results**

A total of 250 responses were received to the email inquiry. Of the initial 120 responses, there was an approximate 5% response rate (120/2478). However, the response rate increased to almost 15% when surveys were sent out a second time to the PCP group (130/879).

### **Practice Setting**

Over three-quarters of respondents (77.1%) were in private practice, with the second most frequent choice being employed (19.3%). Only 2 participants reported being locums (0.8%). Of the 7 (2.8%) participants who chose other, 2 quit private practice

to become employed. The other 5 included: quitting private practice to leave Hawai'i, working in a contract group, working in multiple practice settings, denying insurance altogether, and no longer practicing clinical medicine.

# **How Physicians Feel about Payment Transformation**

Out of 248 completed responses, 55.2% reported being very unhappy, 21.8% being somewhat unhappy, 12.9% being neither happy nor unhappy, 7.7% being somewhat happy, and 2.4% being very happy with payment transformation in Hawai'i (Table 1). In summary, most respondents (77%) reported a level of unhappiness about payment transformation, 12.9% reported indifference, and 10.1% reported a level of happiness.

# **How Payment Transformation has Changed Physician Income**

Out of 241 completed responses, 49.4% reported an income decrease of 10% or more, 11.2% reported an income decrease of less than 10%, 25.0% reported no change in income, 7.0% reported an increased income under 10%, and 7.5% reported an increase of income more than 10% (Table 2). In summary, most physicians (60.6%) reported a decrease in income, 25% reported no change in income, and 14.5% reported an increased income.

### **Open-ended Questions**

Participants were given the opportunity to express their opinions about payment transformation in an open-question format. They were asked, "Tell us what you think of Payment Transformation in Hawai'i and if you have recommendations for improvements in Payment Transformation or other ways to support physicians in Hawai'i." The study received a total of 209 qualitative responses, which were coded as either positive, negative, or neutral. There were many statements made about payment transformation, with 200 responses (95.7%) reporting negative opinions. Terms often used were: "inadequate," "administrative burden,""quality of care," "financial burden," "not fair," "poor communication," "no patient benefit," "insurance companies profit," "physician shortage" and "prior authorization process." In contrast, 8 responses were identified as neutral and 1 response as positive regarding payment transformation. The positive response reported that payment transformation improved patient care after 1 to 2 years. From these responses, 9 thematic clusters were identified through NVivo thematic analysis. These were, in order of prevalence: negative impact on primary care, increased administrative burdens, decreased quality of patient care, decreased physician reimbursement, preference to treat healthier patients, harm to private practice, harm to newer practices, ignored physician sentiments, and worsened physician shortage in Hawai'i (Figure 1).

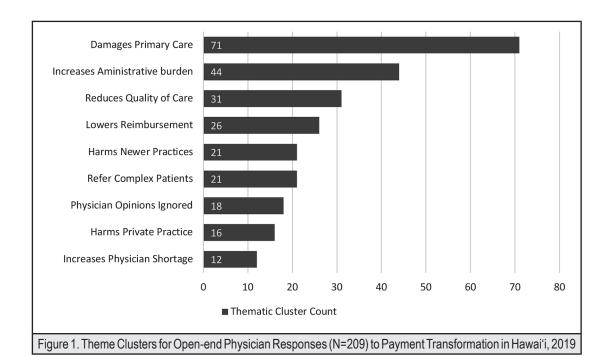
Table 1. Physician Opinions on Payment Transformation in Hawai'i 2019

2010		
Response <sup>a</sup>	Number	Percent of total
I am very happy with the program	6	2.4%
I am somewhat happy with the program	19	7.7%
I am neither happy nor unhappy with the program	32	12.9%
I am somewhat unhappy with the program	54	21.8%
I am very unhappy with the program	137	55.2%
Total	248	100%

<sup>&</sup>lt;sup>a</sup> Q. How do you feel about Payment Transformation in Hawai'i?

Table 2. Physician Reported Income Changes from Payment Transformation in Hawai'i 2019			
Response <sup>a</sup>	Number	Percent of total	
Decreased income more than 10%	119	49.4%	
Decreased income less than 10%	27	11.2%	
Same income as 2016	60	24.9%	
Increased income less than 10%	17	7.0%	
Increased income more than 10%	18	7.5%	
Total	241	100%	

<sup>&</sup>lt;sup>a</sup> Q. Has Payment Transformation changed your income compared to 2016?



# **Discussion**

HMSA's implementation of payment transformation was undertaken to improve health care in Hawai'i. After the 3PC payment transformation, the Aimed Alliance (AA) organization performed a comprehensive survey of PCPs in Hawai'i. The study concluded that the changes seen with payment transformation were largely detrimental to primary care practices. <sup>10</sup> This survey adds to the AA study's conclusions and further characterizes the impact of payment transformation on PCPs with more physician responses and identification of thematic clusters. <sup>10</sup>

#### **Financial Impact**

The results suggest that the financial impact of payment transformation may be worse than previously stated.<sup>10</sup> The current study revealed that 60.6% of respondents, the majority of whom

are PCPs, lost income. This suggests a greater percentage of physicians are losing income than previously documented in the AA study. This study further showed that 49.4% of physicians reported an income decrease of 10% or more, indicating that nearly half of PCP practices are losing a large percentage of income. The loss in income may lead to closure of their private practices, and the AA study showed that the majority of PCPs (65%) knew of another primary care practice that closed due to financial strains.

The AA study suggested some potential causes of the loss of practice income. The AA study reported that 80% of PCPs believed that payment transformation increased administrative burden causing longer work hours, more requests for financial support, more hired staff, and fewer patients seen. <sup>10</sup> This study identifies administrative burden as the second most-identified thematic cluster, which is consistent with the AA study, but also

identifies lower reimbursement as the fourth highest thematic cluster (Figure 1). This study shows that lower reimbursement after payment transformation may be associated with decreased income in PCP practices, which was not previously documented in the AA study.

#### **Quality of Care**

The 3PC payment model aimed to encourage patient engagement without reducing quality of care. The AA study showed that 55% of respondents somewhat or strongly disagreed that payment transformation allowed them to deliver a higher quality of care. 10 PCPs withheld treatments they believed were needed or they referred complex, sick patients to urgent care clinics. The AA study concluded that quality of care was not improved after payment transformation, but it did not conclude that quality of care was reduced. This is consistent with the findings of Navathe et al, which showed no significant improvement in quality of care between pre-3PC and post-3PC models.7 In contrast to prior studies, this study revealed the third most-identified thematic cluster as decreased quality of patient care after payment transformation (Figure 1). Many respondents believe that their quality of care has decreased, which is inconsistent with the goal of 3PC payment transformation.

# **Happiness**

This study aimed to assess physician happiness with payment transformation, which was not addressed in the AA study. Most physicians (77%) reported unhappiness with payment transformation with fewer physicians (10.1%) indicating happiness. The thematic clusters in this study revealed a predominance of negative responses (95.7%) with only 1 positive response about payment transformation. Although level of happiness is an ambiguous term, the thematic clusters identify the most significant impacts of payment transformation on PCP practices, which may indirectly affect their level of happiness. Potential areas of unhappiness may stem from overall negative impact of primary care, increased administrative burden, decreased patient quality of care, decreased reimbursement, preference to treat healthier patients, harm to private practice, harm to newer practices, ignored physician sentiments, and worsened physician shortage in Hawai'i (Figure 1). Any or all of these themes may contribute to PCP unhappiness. The reasons for the negative impact and unhappiness can be identified by their reporting of elevated administrative burden, decreased the quality of patient care, reduced reimbursement, and ignored physician sentiment. Furthermore, PCPs reported spending significantly more time on administrative burdens to obtain the additional 3PC financial incentives. As a result, the respondents reported not only losing income, but also losing motivation to practice primary care.

#### **Physician Shortage**

According to the AA study, 80% of PCPs believe that payment transformation is worsening the physician shortage in Hawai'i, and 80% of PCPs also would not recommend that someone entering the field of medicine to come to Hawai'i to practice primary care. The AA study's conclusions are consistent with this study, which identified the ninth thematic cluster as worsening physician shortage due to payment transformation. In the context of a growing physician shortage in Hawai'i, the demand for PCPs continues to rise. The 2019 Physician Workforce Assessment reports a shortage of approximately 300 full-time equivalents of PCP services and significant shortages in subspecialties across all islands. The data on physician shortage in Hawai'i mirrors the physicians' concerns of worsening PCP shortages and specialist integration. 12 These numbers were reported before the COVID-19 pandemic, which led to many physicians in the nation to close their offices, worsening the physician shortage. 13

# **Improvements to Payment Transformation**

In the AA study, 93% of PCPs reported that payment transformation needs to be improved, possibly re-integrating a fee-forservice model. 10 The current survey data show that physicians, especially those working in primary care, are dissatisfied with payment transformation due to higher administrative burden, decreased quality of care, lower reimbursements, and ignored physician sentiments. Alternative payment models have yet to be proven effective in reducing health care spending or improving the quality of patient care. 11 While alternative payment models may not be effective in reducing health care spending and increasing patient satisfaction, supplementing the program with additional services and peer comparisons interventions may prove beneficial. In a prospective analysis, Ross and colleagues found that using an alternative payment methodology to support behavioral health services in primary care generated a \$1.08 million net cost savings, primarily associated with a reduction in utilization of downstream services such as hospitalizations. 14 A recent study looking at the effectiveness of peer comparisons in improving the quality of care provided by primary care physicians found that a peer comparisons intervention increased quality scores among Hawai'i physicians by 3%. 15 This intervention consisted of a comparison of physician performance relative to that of their peers, and this feedback was provided via email over the course of 37 weeks. Future policy reform with an emphasis on behavioral health as well as professional norms among peers may increase physician satisfaction while reducing health care costs and improving quality of care.

One possible next step to improving primary care in Hawai'i would be to create a wider group of physicians to work with

insurers and patients, thus increasing physician input and balancing the sense of voice and power to examine fair payment methodology in Hawai'i. The qualitative responses provide evidence for physician input in payment processes. A pilot program could be implemented based on the findings of such a group. Physician and patient satisfaction, changes in health care spending, and specific quality metrics could be measured. This way, physicians may not feel like their opinions or sentiments were being ignored, and a relationship built on communication and trust could be solidified.

The 3PC program marks an important first step in creating a more effective, improved health care system for PCPs, patients, and insurers in Hawai'i. Despite the shortcomings and flaws with the program, the central objective of aligning patient care with value, rather than volume, remains essential to a brighter future for both patients and physicians in Hawai'i.

#### **Limitations**

There were several limitations in this study. This survey was conducted in a single health care market with a 10% response rate and a small sample, and therefore, results may not be generalizable to other health care markets. All participants were identified through a list compiled from an AHEC registry, and these physicians may not be representative of the entire physician population in Hawai'i. In addition, there may be self-selection bias as it is more likely that physicians with the strongest negative opinions regarding payment transformation responded compared to physicians with no opinions. This could, in part, account for the majority of negative responses regarding payment transformation. Nevertheless, a strength of this study is the reporting of physician opinions on payment transformation that negatively affect their practice. The findings provided here may provide health care systems such as HMSA with insight from physicians who are underrepresented in payment transformation decisions. The initial survey invitation was sent to a sample of physicians consisting of both specialists and PCPs but the data is primarily represented by primary care. Responses cannot be further delineated between specialists and PCPs. The study was limited to 4 questions that may not provide enough detail on physician opinions on the 3PC model. Currently, there is no data available regarding rural practices, specialty, group size, and whether the physician was in the 3PC pilot program or numbers of years in practice. The data from the open-ended response were qualitative and statistical testing was not conducted for the responses.

# Conclusion

Future research evaluating methods to address the thematic clusters identified in the current study is needed. For instance, an assessment of a streamlined payment process that decreases administrative burden and sustains or improves the quality of patient care or a review on methods for PCPs to provide high quality care to complex patients who do not meet quality measures would be helpful. There is a need for improved communication between the physicians and the insurer when establishing health care policies. This is of particular importance for physicians who are not legally allowed to negotiate for changes in reimbursement strategies, even through physician organizations. Future investigations should identify avenues in which physicians' voices can be better heard and hold a higher priority in policy planning.

Authors' Affiliation:

- John A. Burns School of Medicine, University of Hawai'i, Honolulu, HI

Corresponding Author:

Kurtis Young BS; Email: kcyoung@hawaii.edu

#### References

- Fenton JJ, Jerant AF, Bertakis KD, Franks P. The cost of satisfaction: a national study of patient satisfaction, health care utilization, expenditures, and mortality. Arch Intern Med. 2012;172(5):405-411. doi:10.1001/archinternmed.2011.1662
- Institute of Medicine (US) Roundtable on Evidence-Based Medicine; Yong PL, Saunders RS, Olsen LA, editors. The healthcare imperative: lowering costs and improving outcomes: Workshop Series Summary. Washington (DC): National Academies Press (US); 2010. 1, The Healthcare Imperative. Available from: https://www.ncbi.nlm.nih.gov/books/NBK53944
- Patel KK. Can alternative payment models save primary care?: Lessons from Hawaii for the nation. JAMA. 2019;322(1):35-36. doi:10.1001/jama.2019.8254
- Dugdale DC, Epstein R, Pantilat SZ. Time and the patient-physician relationship. J Gen Intern Med. 1999;14 Suppl 1(Suppl 1):S34-S40. doi:10.1046/j.1525-1497.1999.00263.x
- Sober J, Tomczyk T. Current status of insurance coverage in the State of Hawai'i. Hawai'i Department of Commerce & Consumer Affairs, Insurance Division; 2013. Accessed August 13, 2020. https://cca.hawaii.gov/ins2021/files/2013/06/Hawaii-Background-Research-Final.pdf
- 2018 HMSA's quality improvement program evaluation report executive summary. Hawai'i Medical ServiceAssociation; 2019. Accessed August 13, 2020. https://hmsa.com/Media/Default/documents/2018-quality-report.pdf.
- Navathe AS, Emanuel EJ, Bond A, et al. Association between the implementation of a populationbased primary care payment system and achievement on quality measures in Hawaii. JAMA. 2019;322(1):57-68.
- Cheney C. HealthLeaders. New Capitation Payment Model for Primary Care Boosts Quality. www.healthleadersmedia.com. Published July 2, 2019. Accessed August 13, 2020. https://www.healthleadersmedia.com/clinical-care/new-capitation-payment-model-primary-care-boosts-quality
- QSR International Pty Ltd. (2018) NVivo (Version 12), https://www.qsrinternational.com/nvivoqualitative-data-analysis-software/home
- Trouble in paradise: assessing the outcomes of payment transformation in Hawai'i. Aimed Alliance; 2020. https://aimedalliance.org/wp-content/uploads/2020/05/Trouble-In-Paradise-May-2020.pdf
- Navathe AS, Boyle CW, Emanuel EJ. Alternative payment models victims of their own success? JAMA. 2020;324(3):237–238. doi:10.1001/jama.2020.4133
- Withy K. Report to the 2020 legislature, annual report on the findings from the Hawai'i physician workforce assessment project. University of Hawai'i System; 2019. https://www.hawaii.edu/ offices/government-relations/2020-legislative-reports
- Rubin R. COVID-19's crushing effects on medical practices, some of which might not survive. JAMA. 2020;324(4):321-323.
- Ross KM, Gilchrist EC, Melek SP, Gordon PD, Ruland SL, Miller BF. Cost savings associated with an alternative payment model for integrating behavioral health in primary care. Transl Behavl Med. 2018;9(2):274-281.
- Navathe AS, Volpp KG, Bond AM, et al. Assessing the effectiveness of peer comparisons as a way to improve health care quality. Health Affairs. 2020;39(5):852-861.