

Massachusetts Medical Society Physician Survey on Global Payments



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Executive Summary

This report presents results from the Massachusetts Medical Society's (MMS) 2011 survey of physicians, focusing on their preparedness for global payment contracts. In response to concerns about continued medical spending growth in Massachusetts, there has been active political discussion of new payment models, including use of global payments from health insurance plans to physicians or physician groups. Global payments entail fixed payments per patient per calendar period, and are designed to cover the medical spending for a population of patients. In other words, within global payment contracts, physicians bear both clinical responsibility for and financial risk associated with managing the medical care of their population of patients.

The study had three major goals: 1) to ascertain both the range of payment experiences and organizational structures among current Massachusetts physicians; 2) to understand the perceptions and attitudes of these physicians with respect to global payments, delivery integration and coordination; and 3) to assess physician perceptions of their group's readiness to accept global payment contracts. Between March and May 2011, 572 physicians from a variety of specialties were surveyed by mail. This report summarizes the results of this survey and presents results for primary care and specialist physicians and those in large and small practice settings.

Key Findings

- Of the 572 physician respondents: 290 work in solo practices or small single specialty groups (<20 physicians); and 282 work in larger, generally multispecialty groups or groups connected to hospitals.
- The majority of respondents report that their group has financial performance incentives (either quality or efficiency goals), though many respondents report having limited knowledge about these incentives.
- The majority of respondents (67%) report having access to computer systems for managing at least some types of clinical information, but very few (7%) report having computer-based systems that permit clinical information exchange, communication, and management both inside their group and with physicians and hospitals outside of their group.
- A minority of respondents report that their group is ready to enter global payment contracts (29%) and only 21% report that their group is both ready to enter global payment contracts, and is large enough to provide comprehensive care, negotiate effectively with health plans, and attract skilled managers to oversee these processes.
- Physicians practicing in large groups, with experience with financial performance incentives, and working in a group that has a high readiness to make changes, were all more likely to express readiness for global payments.
- Many of the respondent physicians questioned some of the potential benefits associated with moving to global payments, with the minority believing that medical spending will decrease (44%) or quality will improve (19%), and the majority believing that global payments will reduce physician incentives to work hard (59%). More than three-quarters of respondents

believed that transitioning to a global payment system would reduce the numbers of physicians willing to work in Massachusetts (76%).

- Respondents cited a number of potential barriers to creating larger, integrated health care systems that would be best suited to accepting global payments. Among the most highly cited barriers were challenges in allocating dollars among physicians and hospitals.

Conclusions

Physician respondents in Massachusetts report having few or limited structures that could support population management of medical care, such as electronic clinical information exchange systems across providers. There is, however, considerable variation in responses by practice size, geography, and specialty.

While it is unclear which structural factors are necessary *prior* to payment reform, as opposed to useful in *maximizing the effects* of payment reform, many of these structural elements might not be amenable to rapid changes, e.g., development of functional clinical information exchange across multiple providers

Similarly, the issues identified in this survey suggest that there are a number of opportunities to encourage successful implementation of any policy strategies, including technical assistance for implementing any structural changes, and thoughtful consideration of the order and timing of any milestones during implementation.

Limitations

The survey has a number of limitations.

The survey response rate was low (7,862 total surveys sent, and 572 responses received) thus increasing the susceptibility of the findings to a response bias, i.e., the possibility that survey responders differed systematically from non-responders. Moreover, a few items in the survey had a large number of missing responses, e.g., questions about current payment experiences.

The results are based on physician self reported perceptions. According to one large insurer in MA, two thirds of physicians in the commonwealth will participate in their global payment contract program by this year, 2012. While these contracts appear to be growing in use, there has been limited systematic information on how individual physicians perceive the changes and more importantly on their perceived ability to manage the care of their patients in this new environment. By capturing the self-reported perceptions of a large number of Massachusetts physicians, the survey begins to address these issues.

Introduction

This report presents results from the *2011 Survey of Physician Practice Arrangements and Attitudes Toward Payment Reform*, conducted from March to May 2011 by the Massachusetts Medical Society in collaboration with researchers at Harvard Medical School and Harvard School of Public Health. The project had three major goals:

- To ascertain physicians' resources with respect to major structural requirements for care management and coordination
- To ascertain physicians' attitudes about potential payment reforms
- To ascertain physicians' attitudes about their organization's readiness to make changes

Methods

The survey sample was drawn from a database of all physicians practicing in the Commonwealth maintained by the Medical Society and included both MMS members and non-members. Both primary care physicians and specialist physicians were included in the survey and each specialty was sampled (the sample included physicians with the following specialties: anesthesiology, cardiology, dermatology, emergency medicine, family medicine, gastroenterology, general surgery, internal medicine, neurological surgery, neurology, obstetrics and gynecology, hematology and oncology, orthopedic surgery, pediatrics, psychiatry, radiology, urology). We defined primary care physicians as physicians whose primary area of practice is in internal medicine, general medicine, family practice, or pediatrics, and classified all other physicians as specialists. We excluded physicians with specialties unlikely to be directly affected by the payment changes, e.g., pathologists who practice mostly within hospitals.

Questionnaire

The questionnaire contained four sections that roughly corresponded to the three aims plus a section capturing respondent characteristics:

- Practice environment and experiences (aim 1)
- Organizational support and readiness to make changes (aim 1 and 3)
- Massachusetts health care market (aim 2)
- Respondent characteristics

The questionnaire asked physicians to describe their practice setting and affiliations with larger organizations (e.g., independent practice associations, integrated delivery systems, etc.), their current and past contractual relationships with health plans including their experience with risk-based contracting, their organizational capabilities with respect to electronic health records and data sharing, their group management and relationships, and their attitudes towards medical cost growth in Massachusetts, health plans contracting, and their perceptions of their group's readiness to enter global contracts.

There were questions pertaining to health information systems including use of an electronic health record, availability of real-time information on clinical events such as an emergency department visit by one's patient, communication with other clinicians, and whether these capabilities were paper-based or computer-based (Tables 4a-c). We asked about both intra- and inter-organizational information systems because the latter is predicated on the former, and we expected very little information sharing across organizations. The survey also asked about individual patient-level feedback on broad areas such as utilization of prescription medications, imaging tests, referrals, major clinical events such as emergency department visits, patient satisfaction, quality targets, and costs or efficiency targets. We further queried whether the feedback came from one's organization, as opposed to health insurance plans.

At the heart of the survey were questions about readiness to accept global contracts including specifically readiness to enter into the contracts, provide comprehensive care for patients, negotiate effectively with health insurance plans, attract executive-level talent to manage key organizational functions required for managing population risks, and contract with hospitals or other health care organizations. We also included questions about organizational readiness to make changes including specifically perceptions of being a well-managed organization, readiness to change rapidly, having relevant information available, having necessary information linkages, having patient tracking capabilities, having patient outreach capabilities, having access to capital to make large structure investments, having population management skills, having care coordination processes and tools in place, and readiness to collaborate with other health care organizations including hospitals. In addition, we asked about attitudes concerning global payment approaches' ability to reduce medical costs, improve quality, affect physician work incentives, and affect physician willingness to work in Massachusetts. The survey also asked about the respondent willingness to practice in a global payment environment.

The survey included questions about gender, years since graduating from medical school, years since finishing clinical training, years working in Massachusetts, years working in the current organization, mean hours spent each week on clinical care, and spending at least 75% effort on clinical care.

While it is unclear whether there is a fixed set of structural elements that physician organizations need to be successful under global payment arrangements, the scientific literature suggests a number of factors are likely to be important in managing health care risks for populations of patients. These elements include organization size and integration, experience with similar payment systems, a functional real-time clinical information system, and ability for the organization to make changes. Because of a priori beliefs that these structural elements would vary by practice settings, geographic location, and specialty type, all tables in the report describe physician responses stratified by each of these characteristics.

Sample

Five hundred and seventy two physicians across Massachusetts completed the mailed, self-administered survey. There were two waves of mailings. The overall survey response rate was 7%. In addition, for a few items a sizable percentage of respondents did not answer the question, e.g., 24% of respondents did not answer the question about capitation experience.

Results are presented based on all physicians who answered particular questions.

We were able to classify the organizational size for all 572 respondents, practice location for 567, and specialty for 571. Several respondents (139 of the 572 total respondents) did not answer questions about capitation experience. In interviews performed during pretesting, test physician subjects reported having limited knowledge about the range of contracts used by their organization. Because of the potential importance of this experience in future global payment contracts, we included this question in the final questionnaire

The survey also included questions having financial incentives for quality goals, exposure to penalties (downside risk) for failure to meet quality goals, incentives for efficiency, and exposure to penalties for failure to meet efficiency goals. As with the question about capitation experience, there was a higher rate of non-response for these questions, though still generally approximately 5% or less. For example 34 survey respondents did not answer the question about having any quality incentives and of those answering the question, 19% reported that they did not know.

Analysis

The subsequent section of results provides the distribution of responses in the entire population and stratified by three important characteristics: 1) group structure; 2) geographic region within MA; and 3) specialty type. For group size, we classified respondents working in solo practice or small single specialty groups (i.e., <20 physicians) as belonging to “Solo/Small Groups,” and all other respondents as belong to “Large Groups/Hospitals.” For geographic region, we used the Hospital Referral Region (HRR) classification, and classified respondents based on whether they worked in the “Boston HRR” or “Other HRR.” For specialty type, we defined primary care physicians as described above, e.g., internal medicine or pediatrics, and all other physicians as specialists.

We also were interested in a few specific questions such as perceptions of one’s group’s readiness to accept global payments. For these questions, we used multivariate logistic regression models to determine the association between key structural factors and each outcome. For example, we assessed the association of perceiving that one’s group was ready to accept global payments and the following list of characteristics: being in a large group/hospital vs. not, practicing in the Boston HRR vs. not, being a PCP vs. specialist, being a male physician vs. female, years of practice since completion of clinical training, spending $\geq 75\%$ of time on clinical care vs. not, reporting having capitation experience vs. not, reporting having quality incentives vs. not, reporting having an inter-system computer-based information exchange mechanism vs. not, and reporting that one’s group was ready to make structural changes vs. not. By including all of these factors simultaneously in the same regression model, we can assess the association between our outcome and each factor while accounting for all of the other factors in the model. This approach has value because some characteristics might appear to be strongly associated with a particular outcome, but might no longer be so strongly associated or associated at all once we account for other factors.

Results

Section One: General Characteristics of Physician Respondents

The 572 respondents were predominantly male (61%) and had been working for an average of 18.8 years, with most of that time being in Massachusetts (17.7 years). Respondents had worked in their current organization for an average of 12.2 years and spend on average 41.5 hours per week on clinical work (69.8% reported that at least 75% of a standard work week was for clinical care). Furthermore, 37.6% of respondents reported having past experience with capitated contracts.

As expected, the distribution of characteristics varied by organizational size (Table 1a), areas of the state (Boston area versus outside of Boston) (Table 1b), and specialty (Table 1c). For example, respondents working in large physician groups or in hospitals were much more likely to report having capitation experience than respondents working in solo practices or small groups (50 vs. 26%). Similarly, respondents practicing in the Boston area were more likely to report having capitation experience than respondents practicing in outside of the Boston metropolitan area (41 vs. 27%); and primary care physicians were more likely to report having capitation experience (48 vs. 25%).

Table 1a: Respondent individual characteristics by group structure

Characteristic		Overall	Solo/small group	Large group/hosp
Total	Subjects	572	290	282
Gender	Missing (n)	5	3	2
	% Female	39.0%	35.2%	42.9%
Yrs since graduation	Missing (n)	12	4	8
	Mean	24.1	25.4	22.7
Yrs since finishing training	Missing (n)	11	6	5
	Mean	18.8	20.2	17.3
Yrs working in Mass.	Missing (n)	7	1	6
	Mean	17.7	19.2	16.1
Yrs working in group	Missing (n)	10	6	4
	Mean	12.2	14.1	10.3
Mean clinical effort	Missing (n)	16	8	8
	Mean	41.5	46.6	36.3
	% with >=75% clinical effort	69.8%	79.4%	59.9%
Capitation Experience	Missing (n)	139	69	70
	% with Capitation Experience	37.6%	25.8%	50.0%

% based on non-missing responses¹

¹ There were fewer than 16 missing responses for the items reported in these tables, with the exception of capitation experience where 139 respondents declined to answer. Based on our pretest results, we infer that the high degree of item non-response for the capitation question is a result of lack of awareness about contracting terms.

Table 1b: Respondent individual characteristics by region

Characteristic		Overall	Outside of Boston	Boston Area
Total	Subjects	567	126	441
Gender	Missing (n)	5	2	3
	% Female	39.15	36.29	39.95
Yrs since graduation	Missing (n)	12	4	8
	Mean	24.1	24.9	23.9
Yrs since finishing training	Missing (n)	11	5	6
	Mean	18.8	19.8	18.6
Yrs working in Mass.	Missing (n)	7	2	5
	Mean	17.8	18.6	17.6
Yrs working in group	Missing (n)	11	0	11
	Mean	12.3	12.4	12.2
Mean clinical effort	Missing (n)	16	4	12
	Mean	41.4	37.7	42.4
	% with >=75% clinical effort	69.51	69.67	69.46
Capitation Experience	Missing (n)	135	37	98
	% with Capitation Experience	37.96	26.97	40.82

% based on non-missing responses

Table 1c: Respondent individual characteristics by specialty

Characteristic		Overall	Specialist	PCP
Total	Subjects	571	255	316
Gender	Missing (n)	5	3	2
	% Female	39.22	33.73	43.63
Yrs since graduation	Missing (n)	12	6	6
	Mean	24.1	25.0	23.4
Yrs since finishing training	Missing (n)	11	6	5
	Mean	18.8	18.9	18.7
Yrs working in Mass.	Missing (n)	7	4	3
	Mean	17.8	18.3	17.3
Yrs working in group	Missing (n)	11	7	4
	Mean	12.2	12.4	12.1
Mean clinical effort	Missing (n)	16	6	10
	Mean	41.4	47.2	36.7
	% with >=75% clinical effort	69.55	76.31	64.05
Capitation Experience	Missing (n)	138	63	75
	% with Capitation Experience	37.88	25	48.13

% based on non-missing responses

Section Two: General Characteristics of Physician Organizations

We categorized physicians working in solo practices or small single specialty groups (<20 physicians) as working in solo/small groups, and the remainder as working in large groups/hospitals (Table 2a). Even among physicians in solo/small groups, the majority of physicians reported being part of a larger physician organization when contracting with health insurance plans (76.8% of solo/small group respondents and 72% of large group/hospital respondents). More physicians located outside of the Boston area were in small/solo practices (27% v 20%), but similar proportions were affiliated with larger organizations for the purposes of contracting. Specialist physicians were more likely to be in single specialty groups and were less likely to be affiliated with a larger organization for purposes of contracting.

Table 2a: Respondent group structural characteristics by group structure

Characteristic		Overall	Solo/small group	Large group/hosp
Total	Subjects	570	289	281
Practice Type	Missing (n)	1	1	0
	% in Solo	21.79	43.06	0
	% in Single Specialty	34.45	56.94	11.39
	% in Multi-specialty	26.36	0	53.38
	% in hospital	17.4	0	35.23
Contracting	Missing (n)	6	0	6
	% part of larger PO	74.47	76.82	72
	% of PO with hospital	83.37	83.87	82.81
Group size	Missing (n)	2	0	2
	1-2	21.83	42.91	0
	3-5	14.79	22.84	6.45
	6-10	14.44	20.42	8.24
	11-19	14.08	13.84	14.34
	20-49	11.27	0	22.94
	50+	23.6	0	48.03

Table 2b: Respondent group structural characteristics by region

Characteristic		Overall	Other HRR	Boston HRR
Total	Subjects	567	126	441
Practice Type	Missing (n)	4	1	3
	% in Solo	21.67	27.2	20.09
	% in Single Specialty	34.46	22.4	37.9
	% in Multi-specialty	26.47	31.2	25.11
	% in hospital	17.41	19.2	16.89
Contracting	Missing (n)	7	3	4
	% part of larger PO	74.46	73.98	74.6
	% of PO with hospital	83.5	80.9	84.23
Group size	Missing (n)	5	0	5
	1-2	21.71	26.98	20.18
	3-5	14.59	17.46	13.76
	6-10	14.59	7.14	16.74
	11-19	14.06	13.49	14.22
	20-49	11.39	10.32	11.7
	50+	23.67	24.6	23.4

Table 2c: Respondent group structural characteristics by specialty

Characteristic		Overall	Specialist	PCP
Total	Subjects	571	255	316
Practice Type	Missing (n)	4	0	4
	% in Solo	21.87	21.57	22.12
	% in Single Specialty	34.39	41.18	28.85
	% in Multi-specialty	26.46	21.96	30.13
	% in hospital	17.28	15.29	18.91
Contracting	Missing (n)	7	3	4
	% part of larger PO	74.29	70.63	77.24
	% of PO with hospital	83.58	86.86	81.12
Group size	Missing (n)	5	2	3
	1-2	21.91	21.74	22.04
	3-5	14.66	12.25	16.61
	6-10	14.49	16.6	12.78
	11-19	14.13	13.44	14.7
	20-49	11.31	11.46	11.18
	50+	23.5	24.51	22.68

Section Three: Payment Experiences

As expected, more respondents working in large groups/hospitals reported that they did not know about their organizations quality and efficiency incentives than respondents working in solo practices/small groups (57 vs. 38% reporting having limited or no knowledge about their organization's quality and efficiency incentives, Table 3a).

Primary care physicians were more likely than specialist physicians to experience both quality incentives (77% v. 58%) and efficiency incentives (47% v. 34%). They were also more likely to share downside risk. Physicians in the Boston metro area were also more likely to experience both types of incentives – particularly in the form of downside risk -- when compared to those living outside of Boston.

Table 3a: Experience with quality and efficiency incentives by group structure

Characteristic		Overall	Solo/small group	Large group/hosp
Total	Subjects	570	289	281
Quality incentives?	Missing (n)	34	19	15
	% No	12.13	12.59	11.65
	% Yes	69.03	71.85	66.17
	% Don't know	18.84	15.56	22.18
Quality downside risks?	Missing (n)	32	18	14
	% No	19.14	20.66	17.6
	% Yes	52.6	54.61	50.56
	% Don't know	28.26	24.72	31.83
Efficiency incentive?	Missing (n)	34	19	15
	% No	17.35	18.15	16.54
	% Yes	41.6	50.37	32.71
	% Don't know	41.04	31.48	50.75
Efficiency downside risk?	Missing (n)	35	19	16
	% No	19.44	19.63	19.25
	% Yes	35.7	43.33	27.92
	% Don't know	44.86	37.04	52.83

% based on non-missing responses. If subjects reported don't know for either, then we categorized the subject as uncertain for both items. Corresponds to items A9 and A10 on the questionnaire.

Table 3b: Experience with quality and efficiency incentives by region

Characteristic		Overall	Other HRR	Boston HRR
Total	Subjects	567	126	441
Quality incentives?	Missing (n)	34	9	25
	% No	12.01	11.11	12.26
	% Yes	69.23	68.38	69.47
	% Don't know	18.76	20.51	18.27
Quality downside risks?	Missing (n)	32	9	23
	% No	19.25	25.64	17.46
	% Yes	52.71	42.74	55.5
	% Don't know	28.04	31.62	27.04
Efficiency incentive?	Missing (n)	34	9	25
	% No	17.26	22.22	15.87
	% Yes	41.65	36.75	43.03
	% Don't know	41.09	41.03	41.11
Efficiency downside risk?	Missing (n)	35	10	25
	% No	19.36	26.72	17.31
	% Yes	35.9	28.45	37.98
	% Don't know	44.74	44.83	44.71

% based on non-missing responses. If subjects reported don't know for either, then we categorized the subject as uncertain for both items. Corresponds to items A9 and A10 on the questionnaire.

Table 3c: Experience with quality and efficiency incentives by specialty

Characteristic		Overall	Specialist	PCP
Total	Subjects	571	255	316
Quality incentives?	Missing (n)	34	19	15
	% No	12.1	16.53	8.64
	% Yes	69.09	58.05	77.74
	% Don't know	18.81	25.42	13.62
Quality downside risks?	Missing (n)	32	19	13
	% No	19.29	16.53	21.45
	% Yes	52.69	50.42	54.46
	% Don't know	28.02	33.05	24.09
Efficiency incentive?	Missing (n)	34	22	12
	% No	17.32	21.46	14.14
	% Yes	41.53	33.91	47.37
	% Don't know	41.15	44.64	38.49
Efficiency downside risk?	Missing (n)	35	21	14
	% No	19.4	18.8	19.87
	% Yes	35.82	32.48	38.41
	% Don't know	44.78	48.72	41.72

% based on non-missing responses. If subjects reported don't know for either, then we categorized the subject as uncertain for both items. Corresponds to items A9 and A10 on the questionnaire.

Section Four: Clinical Information Support and Feedback of Performance Information

A minority of respondents (7%) reported having the ability to share real-time clinical information with other health care providers using computer systems. Respondents working in large groups/hospitals were slightly more likely to report having this clinical information support than those working in solo practices/small groups; similarly, slightly more specialists reported having this support than PCPs. The questions about clinical information support were deliberately basic, and should not be interpreted to suggest that 7% of physicians actually have complete clinical information systems or all of the necessary functionality to manage the health needs of a population of patients. Instead, these findings suggest that most physicians have only limited clinical information support and that exchange of clinical information across physicians working in different organizations represents a persistent challenge.

Many respondents reported receiving at least some feedback, most commonly on prescription medication use (64%), and rarely on all of these items (4%). PCPs were substantially more likely than specialists to receive feedback on their performance in every category about which we asked.

Table 4a: Availability of clinical information systems by group structure

Characteristic		Overall	Solo/small group	Large group/hosp
Total	Subjects	572	290	282
Intra-system functionality				
Intra-system clinical info mgmt e.g., pharmacy, labs, radiology, and consultation notes	Missing (n)	26	17	9
	% No	7.9%	12.5%	3.3%
	% Yes – paper	25.1%	35.2%	15.0%
	% Yes - computer	67.0%	52.4%	81.7%
Intra-system clinical events, e.g., messages about ED visits or hospitalizations for one's patients	Missing (n)	38	21	17
	% No	10.1%	16.0%	4.2%
	% Yes – paper	31.3%	42.8%	19.6%
	% Yes - computer	58.6%	41.3%	76.2%
Intra-system communication, e.g., consultation messages or discharge summaries	Missing (n)	32	18	14
	% No	9.8%	15.4%	4.1%
	% Yes – paper	36.9%	49.3%	24.3%
	% Yes - computer	53.3%	35.3%	71.6%
Intra-system information mgmt with all of the above functionality	Missing (n)	42	23	19
	% No computer	51.3%	67.4%	35.0%
	% Yes computer	48.7%	32.6%	65.0%
Inter-system functionality				
Clinical info exchange e.g., pharmacy, labs, radiology, and consultation notes	Missing (n)	109	59	50
	% No	21.4%	29.0%	13.8%
	% Yes – paper	66.5%	60.2%	72.8%
	% Yes - computer	12.1%	10.8%	13.4%
Clinical event exchange e.g., messages about ED visits or hospitalizations for one's patients	Missing (n)	120	63	57
	% No	23.5%	30.8%	16.0%
	% Yes – paper	65.0%	61.7%	68.4%
	% Yes - computer	11.5%	7.5%	15.6%
Inter-system communication e.g., consultation messages or discharge summaries	Missing (n)	117	62	55
	% No	20.9%	28.1%	13.7%
	% Yes – paper	70.5%	65.4%	75.8%
	% Yes - computer	8.6%	6.6%	10.6%
Inter-system information mgmt with all of the above functionality	Missing (n)	124	64	60
	% No computer	93.1%	95.1%	91.0%
	% Yes computer	6.9%	4.9%	9.0%
Both				
Computer-based, inter- and intra-system communication	Missing (n)	125	66	59
	% No computer	92.8%	95.1%	90.6%
	% Yes computer	7.2%	4.9%	9.4%

% based on non-missing responses. Corresponds to items B1 and B2 on the questionnaire.

Table 4b: Availability of clinical information systems by region

Characteristic		Overall	Other HRR	Boston HRR
Total	Subjects	567	126	441
Intra-system functionality				
Intra-system clinical info mgmt	Missing (n)	27	7	20
e.g., pharmacy, labs, radiology, and consultation notes	% No	7.78	9.24	7.36
	% Yes – paper	25.19	35.29	22.33
	% Yes - computer	67.04	55.46	70.31
Intra-system clinical events, e.g., messages about ED visits or hospitalizations for one's patients	Missing (n)	38	12	26
	% No	10.02	10.53	9.88
	% Yes – paper	31.19	43.86	27.71
	% Yes - computer	58.79	45.61	62.41
Intra-system communication, e.g., consultation messages or discharge summaries	Missing (n)	33	10	23
	% No	9.74	11.21	9.33
	% Yes – paper	36.52	47.41	33.49
	% Yes - computer	53.75	41.38	57.18
Intra-system information mgmt with all of the above functionality	Missing (n)	42	13	29
	% No computer	50.86	61.95	47.82
	% Yes computer	49.14	38.05	52.18
Inter-system functionality				
Clinical info exchange	Missing (n)	110	30	80
e.g., pharmacy, labs, radiology, and consultation notes	% No	21.01	19.79	21.33
	% Yes – paper	66.96	69.79	66.2
	% Yes - computer	12.04	10.42	12.47
Clinical event exchange	Missing (n)	121	32	89
e.g., messages about ED visits or hospitalizations for one's patients	% No	23.09	21.28	23.58
	% Yes – paper	65.47	71.28	63.92
	% Yes - computer	11.43	7.45	12.5
Inter-system communication	Missing (n)	117	33	84
e.g., consultation messages or discharge summaries	% No	20.44	17.2	21.29
	% Yes – paper	70.89	74.19	70.03
	% Yes - computer	8.67	8.6	8.68
Inter-system information mgmt with all of the above functionality	Missing (n)	124	34	90
	% No computer	93	95.65	92.31
	% Yes computer	7	4.35	7.69
Both				
Computer-based, inter- and intra-system communication	Missing (n)	125	36	89
	% No computer	92.76	93.33	92.61
	% Yes computer	7.24	6.67	7.39

% based on non-missing responses. Corresponds to items B1 and B2 on the questionnaire.

Table 4c: Availability of clinical information systems by specialty

Characteristic		Overall	Specialist	PCP
Total	Subjects	571	255	316
Intra-system functionality				
Intra-system clinical info mgmt e.g., pharmacy, labs, radiology, and consultation notes	Missing (n)	27	14	13
	% No	7.72	9.96	5.94
	% Yes – paper	25.18	21.16	28.38
	% Yes - computer	67.1	68.88	65.68
Intra-system clinical events, e.g., messages about ED visits or hospitalizations for one's patients	Missing (n)	39	22	17
	% No	9.96	14.59	6.35
	% Yes – paper	31.39	27.9	34.11
	% Yes - computer	58.65	57.51	59.53
Intra-system communication, e.g., consultation messages or discharge summaries	Missing (n)	33	16	17
	% No	9.67	11.72	8.03
	% Yes – paper	36.62	35.15	37.79
	% Yes - computer	53.72	53.14	54.18
Intra-system information mgmt with all of the above functionality	Missing (n)	43	22	21
	% No computer	50.95	51.07	50.85
	% Yes computer	49.05	48.93	49.15
Inter-system functionality				
Clinical info exchange e.g., pharmacy, labs, radiology, and consultation notes	Missing (n)	111	53	58
	% No	20.87	29.21	14.34
	% Yes – paper	66.96	54.95	76.36
	% Yes - computer	12.17	15.84	9.3
Clinical event exchange e.g., messages about ED visits or hospitalizations for one's patients	Missing (n)	122	60	62
	% No	22.94	34.36	14.17
	% Yes – paper	65.48	53.33	74.8
	% Yes - computer	11.58	12.31	11.02
Inter-system communication e.g., consultation messages or discharge summaries	Missing (n)	119	57	62
	% No	20.35	28.28	14.17
	% Yes – paper	71.02	61.11	78.74
	% Yes - computer	8.63	10.61	7.09
Inter-system information mgmt with all of the above functionality	Missing (n)	126	61	65
	% No computer	93.03	90.72	94.82
	% Yes computer	6.97	9.28	5.18
Both				
Computer-based, inter- and intra-system communication	Missing (n)	127	60	67
	% No computer	92.79	90.26	94.78
	% Yes computer	7.21	9.74	5.22

% based on non-missing responses. Corresponds to items B1 and B2 on the questionnaire.

Table 4d: Experience with performance feedback by group structure

Group's readiness:	Overall	Solo/small group	Large group/hosp
Feedback area	570	289	281
Prescription medications	64.39	65.05	63.7
Utilization of imaging	17.19	15.22	19.22
Referrals	23.68	22.84	24.56
Major clinical events	31.58	29.07	34.16
Patient satisfaction	21.23	16.96	25.62
Quality	27.19	31.49	22.78
Cost or efficiency	25.09	29.07	21
All of the above	4.04	3.46	4.63
Feedback from my medical group or health care organization	57.19	52.6	61.92

Report having feedback for my personal patients. Feedback from insurance plan or no feedback coded as NO. Corresponds to items B3 and B4 on the questionnaire.

Table 4e: Experience with performance feedback by region

Group's readiness:	Overall	Other HRR	Boston HRR
Feedback area	567	126	441
Prescription medications	64.55	69.84	63.04
Utilization of imaging	17.64	14.29	18.59
Referrals	23.81	24.6	23.58
Major clinical events	32.1	28.57	33.11
Patient satisfaction	21.52	18.25	22.45
Quality	27.34	34.92	25.17
Cost or efficiency	25.22	28.57	24.26
All of the above	4.06	2.38	4.54
Feedback from my medical group or health care organization	57.67	50.79	59.64

Report having feedback for my personal patients. Feedback from insurance plan or no feedback coded as NO. Corresponds to items B3 and B4 on the questionnaire.

Table 4f: Experience with performance feedback by specialty

Group's readiness:	Overall	Specialist	PCP
Feedback area	571	255	316
Prescription medications	64.45	52.94	73.73
Utilization of imaging	17.51	12.55	21.52
Referrals	23.64	11.76	33.23
Major clinical events	31.87	20.78	40.82
Patient satisfaction	21.37	17.25	24.68
Quality	27.32	15.29	37.03
Cost or efficiency	25.22	18.43	30.7
All of the above	4.03	1.18	6.33
Feedback from my medical group or health care organization	57.44	46.27	66.46

Report having feedback for my personal patients. Feedback from insurance plan or no feedback coded as NO. Corresponds to items B3 and B4 on the questionnaire.

Section Five: Perceptions of Organizational Readiness to Accept Global Payments

Few respondents reported that their organization was ready to enter into global contracts (29% reported that they strongly agree or agree that their organization could enter these contracts now), and some respondents (43%) reported that their organization was ready to contract with hospitals or other health care organizations. The majority of respondents, however, believed that their organization was ready to provide comprehensive medical care for patients (66%), negotiate effectively with health care plans 60% (and attract executive talent (63%). In general, those practicing in solo or smaller practice settings with fewer than 20 physicians expressed less capacity to enter into global risk arrangements. For instance, only about half of these respondents reported that they had the ability to provide comprehensive care, recruit adequate executive talent, or negotiate effectively with health plans as compared to more than three-quarters of physicians practicing in larger group settings. PCPs reported much greater capacity to enter global payments when compared to specialists, but there were only minor differences for those located in the Boston metro area versus outside of Boston. Only 22% of physician respondents reported that they would like to practice under a global payment system.

After adjusting for all of the respondent and organizational characteristics, the factors significantly associated with being ready to accept global payments were practicing in a large group/hospital (OR=2.6, 95% CI: 1.52-4.43), capitation experience (OR=1.78, 95% CI: 1.05-3.01), and organizational readiness to make changes (OR=3.17, 95% CI: 1.81-5.54, Table 5d).

Table 5a: Attitudes about readiness for global payment, by group structure

Group's readiness:		Overall	Solo/small group	Large group/hosp
Total	Subjects	570	289	281
Enter global payment contracts	Missing (n) % SA or A	32 29	10 18.28	22 40.54
Provide comprehensive care	Missing (n) % SA or A	28 66.24	12 53.43	16 79.62
Negotiate effectively with plans	Missing (n) % SA or A	33 59.59	16 47.62	17 71.97
Attract executive talent	Missing (n) % SA or A	28 62.92	12 48.74	16 77.74
Contract with hospitals/others	Missing (n) % SA or A	39 42.75	14 28.36	25 58.2
All of the above	Missing (n) % SA or A	53 21.08	22 12.73	31 30

Percent Strongly Agree or Agree with each item. Corresponds to A12 items on the questionnaire.

Table 5b: Attitudes about readiness for global payment, by region

Group's readiness:		Overall	Other HRR	Boston HRR
Total	Subjects	567	126	441
Enter global payment contracts	Missing (n)	31	6	25
	% SA or A	29.29	25	30.53
Provide comprehensive care	Missing (n)	27	6	21
	% SA or A	66.11	65	66.43
Negotiate effectively with plans	Missing (n)	32	6	26
	% SA or A	59.81	60.83	59.52
Attract executive talent	Missing (n)	27	6	21
	% SA or A	62.96	60.83	63.57
Contract with hospitals/others	Missing (n)	38	7	31
	% SA or A	42.91	32.77	45.85
All of the above	Missing (n)	52	7	45
	% SA or A	21.36	15.13	23.23

Percent Strongly Agree or Agree with each item. Corresponds to A12 items on the questionnaire.

Table 5c: Attitudes about readiness for global payment, by specialty

Group's readiness:		Overall	Specialist	PCP
Total	Subjects	571	255	316
Enter global payment contracts	Missing (n)	33	10	23
	% SA or A	29.18	22.45	34.81
Provide comprehensive care	Missing (n)	29	12	17
	% SA or A	66.24	57.61	73.24
Negotiate effectively with plans	Missing (n)	34	13	21
	% SA or A	59.78	52.48	65.76
Attract executive talent	Missing (n)	29	10	19
	% SA or A	62.92	51.43	72.39
Contract with hospitals/others	Missing (n)	40	12	28
	% SA or A	42.94	36.21	48.61
All of the above	Missing (n)	54	19	35
	% SA or A	21.28	16.53	25.27

Percent Strongly Agree or Agree with each item. Corresponds to A12 items on the questionnaire.

Table 5d: Willingness to practice under global payments

		Overall	Solo/small group	Large group/hosp
Total	Subjects	570	289	281
I would like to practice under a global payment system	Missing (n)	30	17	13
	% SA or A	22.41	11.03	33.96
		Overall	Other HRR	Boston HRR
Total	Subjects	567	126	441
I would like to practice under a global payment system	Missing (n)	31	6	25
	% SA or A	22.57	23.33	22.36
		Overall	Specialist	PCP
Total	Subjects	571	255	316
I would like to practice under a global payment system	Missing (n)	31	10	21
	% SA or A	22.41	11.02	31.86

Corresponds to item C1e on the questionnaire.

Table 5e: Predictors of readiness for global payment

	Model 1 (n=496)			Model 2 (n=496)			Model 3 (n=457)		
	OR	95%	CI	OR	95%	CI	OR	95%	CI
Large group/hosp *	2.75	1.68	4.51	2.67	1.62	4.40	2.60	1.53	4.43
Boston HRR*	1.81	0.98	3.33	1.70	0.92	3.14	1.61	0.84	3.07
PCP*	1.46	0.90	2.36	1.40	0.85	2.30	1.32	0.78	2.24
Male *	0.99	0.61	1.60	1.04	0.64	1.69	0.93	0.55	1.58
Years since training (cont)*	1.02	0.99	1.04	1.01	0.99	1.04	1.02	0.99	1.04
>=75% clinical effort*	0.73	0.45	1.18	0.67	0.41	1.09	0.68	0.40	1.14
Reported Capitation Experience	2.01	1.24	3.25	1.96	1.19	3.21	1.78	1.05	3.01
Reported quality incentives				1.61	0.93	2.80	1.63	0.92	2.92
Reported inter-system computer-based system				2.72	1.15	6.40	2.19	0.86	5.58
Readiness to make changes*							3.17	1.81	5.54

*had some missing responses

model = logistic regression (stata logistic) with the outcome being readiness to accept global payments (answering yes to all items).

Section Six: Perceptions of Organizational Readiness to Make Changes

In general, physicians in large group settings reported greater organizational capacities for entering into global payments including information tracking capability and patient tracking and outreach capability. They also reported more coordination capability and population management skills. PCPs were also more frequently reported these capabilities when compared to specialists as did those living in the Boston metro area.

After multivariate adjustment, characteristics associated with organizational readiness to make changes included being a large group/hospital (OR=1.9 95% CI: 1.11-3.23), having capitation experience (OR=2.3, 95% CI: 1.37-3.85), and having inter-organizational computer-based clinical information systems (OR=2.93, 95% CI: 1.22-7.05).

Table 6a: Perceptions of traits related to the group's ability to change, by group structure

Characteristic		Overall	Solo/small group	Large group/hosp
Total	Subjects	570	289	281
Well-managed organization	Missing (n)	20	15	5
	% SA or A	81.45	83.94	78.99
Ready to change rapidly	Missing (n)	27	17	10
	% SA or A	47.88	40.81	54.98
Information availability	Missing (n)	35	24	11
	% SA or A	62.99	56.6	69.26
Information linkage	Missing (n)	29	19	10
	% SA or A	48.98	41.48	56.46
Patient tracking capability	Missing (n)	32	23	9
	% SA or A	60.59	51.13	69.85
Patient outreach	Missing (n)	31	25	6
	% SA or A	63.27	53.03	73.09
Access to capital	Missing (n)	32	21	11
	% SA or A	44.98	36.57	53.33
Population mgmt skills	Missing (n)	32	20	12
	% SA or A	50.37	39.78	60.97
Coordination processes/tools	Missing (n)	29	19	10
	% SA or A	53.79	42.59	64.94
Ready to collaborate	Missing (n)	33	22	11
	% SA or A	73.37	66.29	80.37
All of the above	Missing (n)	70	41	29
	% SA or A	19	12.9	25

Percent Strongly Agree or Agree with each item. Corresponds to item B5 on the questionnaire.

Table 6b: Perceptions of traits related to the group's ability to change, by region

Characteristic		Overall	Other HRR	Boston HRR
Total	Subjects	567	126	441
Well-managed organization	Missing (n)	21	6	15
	% SA or A	81.87	77.5	83.1
Ready to change rapidly	Missing (n)	28	9	19
	% SA or A	48.24	47.01	48.58
Information availability	Missing (n)	36	9	27
	% SA or A	63.47	60.68	64.25
Information linkage	Missing (n)	29	6	23
	% SA or A	48.88	44.17	50.24
Patient tracking capability	Missing (n)	31	7	24
	% SA or A	60.82	54.62	62.59
Patient outreach	Missing (n)	31	6	25
	% SA or A	63.62	56.67	65.62
Access to capital	Missing (n)	32	8	24
	% SA or A	44.86	41.53	45.8
Population mgmt skills	Missing (n)	31	7	24
	% SA or A	50.56	44.54	52.28
Coordination processes/tools	Missing (n)	30	8	22
	% SA or A	53.82	49.15	55.13
Ready to collaborate	Missing (n)	34	8	26
	% SA or A	73.55	67.8	75.18
All of the above	Missing (n)	69	18	51
	% SA or A	19.08	14.81	20.26

Percent Strongly Agree or Agree with each item. Corresponds to item B5 on the questionnaire.

Table 6c: Perceptions of traits related to the group's ability to change, by specialty

Characteristic		Overall	Specialist	PCP
Total	Subjects	571	255	316
Well-managed organization	Missing (n)	21	10	11
	% SA or A	81.64	79.59	83.28
Ready to change rapidly	Missing (n)	28	11	17
	% SA or A	48.07	43.03	52.17
Information availability	Missing (n)	36	15	21
	% SA or A	63.18	59.17	66.44
Information linkage	Missing (n)	30	12	18
	% SA or A	48.98	47.33	50.34
Patient tracking capability	Missing (n)	33	15	18
	% SA or A	60.78	54.17	66.11
Patient outreach	Missing (n)	32	17	15
	% SA or A	63.27	57.14	68.11
Access to capital	Missing (n)	33	13	20
	% SA or A	44.98	40.91	48.31
Population mgmt skills	Missing (n)	33	13	20
	% SA or A	50.56	43.8	56.08
Coordination processes/tools	Missing (n)	30	12	18
	% SA or A	53.97	46.91	59.73
Ready to collaborate	Missing (n)	34	15	19
	% SA or A	73.56	70	76.43
All of the above	Missing (n)	71	30	41
	% SA or A	19	14.22	22.91

Percent Strongly Agree or Agree with each item. Corresponds to item B5 on the questionnaire.

Table 6d: Predictors of readiness to make changes

	Model 1 (n=481)			Model 2 (n=487)			Model 3 (n=487)		
	OR	95%	CI	OR	95%	CI			
Large group/hosp *	1.81	1.08	3.03	1.72	0.99	2.97	1.90	1.11	3.23
Boston HRR	1.32	0.71	2.46	1.13	0.60	2.13	1.17	0.62	2.20
PCP	1.61	0.96	2.68	1.61	0.95	2.73	1.56	0.92	2.64
Male *	1.49	0.90	2.48	1.44	0.86	2.42	1.47	0.88	2.47
Years since training (cont)*	0.97	0.95	1.00	0.97	0.94	1.00	0.97	0.94	0.99
>=75% clinical effort*	0.80	0.48	1.34	0.79	0.46	1.34	0.74	0.44	1.25
Reported Capitation Experience	2.26	1.36	3.74	2.37	1.41	3.98	2.30	1.37	3.85
Reported quality incentives				0.68	0.37	1.24			
Reported efficient incentives				1.86	1.05	3.31	1.61	0.97	2.69
Reported intra-system computer-based system				1.56	0.93	2.60			
Reported inter-system computer-based system				2.63	1.09	6.36	2.93	1.22	7.05

*had some missing responses

model = logistic regression (stata logistic), outcome is readiness to change

Section Seven: Perceptions of Health Care in Massachusetts

In general, physician respondents reported skepticism of global payments with the minority believing that global payments would reduce medical costs (45%) or improve quality (19%), and the majority believing that global payments would reduce physician incentives to work (59%) and result in fewer physicians practicing in Massachusetts (76%).

Table 7a Respondent attitudes about the Massachusetts Health Care Market, by group structure

Global payments will		Overall	Solo/small group	Large group/hosp
Total	Subjects	570	289	281
Reduce medical costs	Missing (n)	29	13	16
	% SA or A	44.55	30.8	58.87
Improve quality	Missing (n)	25	13	12
	% SA or A	18.72	11.59	26.02
Reduce work incentive	Missing (n)	28	15	13
	% SA or A	58.86	65.69	51.87
Reduce number of Mass. docs	Missing (n)	30	16	14
	% SA or A	76.3	85.35	67.04

Percent Strongly Agree or Agree with each item. Corresponds to item C1 on the questionnaire.

Table 7b. Respondent attitudes about the Massachusetts Health Care Market, by region

Global payments will		Overall	Other HRR	Boston HRR
Total	Subjects	567	126	441
Reduce medical costs	Missing (n)	29	5	24
	% SA or A	44.8	41.32	45.8
Improve quality	Missing (n)	26	4	22
	% SA or A	18.85	20.49	18.38
Reduce work incentive	Missing (n)	28	6	22
	% SA or A	58.63	55.83	59.43
Reduce number of Mass. docs	Missing (n)	31	8	23
	% SA or A	76.12	72.88	77.03

Percent Strongly Agree or Agree with each item. Corresponds to item C1 on the questionnaire.

Table 7c. Respondent attitudes about the Massachusetts Health Care Market, by specialty

Global payments will		Overall	Specialist	PCP
Total	Subjects	571	255	316
Reduce medical costs	Missing (n)	30	8	22
	% SA or A	44.55	34.01	53.4
Improve quality	Missing (n)	26	7	19
	% SA or A	18.72	8.87	26.94
Reduce work incentive	Missing (n)	29	8	21
	% SA or A	58.67	72.47	47.12
Reduce number of Mass. docs	Missing (n)	31	12	19
	% SA or A	76.11	85.6	68.35

Percent Strongly Agree or Agree with each item. Corresponds to item C1 on the questionnaire.

Section Eight: Perceptions Barriers to the Creation of Large, Integrated Care Delivery Systems

The majority of respondents affirmed the importance of each of the barriers we hypothesized might slow the adoption of large, integrated care delivery systems. Payment allocation challenges (both between physicians, and between physicians and hospitals) were the barrier to integration most respondents. Respondents in solo/small group practices were more likely than those in large groups or hospitals to identify practice-level capabilities such as leadership to be barriers to integration.

Table 8a: Respondent perceptions about barriers to create larger integrated systems, by group structure

Challenges include		Overall	Solo/small group	Large group/hosp
Total	Subjects	570	289	281
Pay allocation difficulty- docs	Missing (n) % SA or A	32 89.78	20 90.71	12 88.85
Pay allocation difficulty: docs/hosp	Missing (n) % SA or A	36 92.7	20 93.68	16 91.7
Inadequate leadership	Missing (n) % SA or A	35 67.48	24 73.21	11 61.85
Antitrust laws	Missing (n) % SA or A	85 61.65	47 66.94	38 56.38
Inadequate health IT	Missing (n) % SA or A	33 72.63	22 78.65	11 66.67
Inadequate performance measurement	Missing (n) % SA or A	29 79.11	19 82.22	10 76.01
Inadequate risk adjust tools	Missing (n) % SA or A	47 81.64	25 86.74	22 76.45
Inadequate risk mgmt tools	Missing (n) % SA or A	42 75.76	26 79.85	16 71.7
Inadequate PCP numbers	Missing (n) % SA or A	38 78.2	22 79.78	16 76.6
Inadequate doc skills	Missing (n) % SA or A	51 61.66	30 62.55	21 60.77

Percent Strongly Agree or Agree with each item. Corresponds to item C2 on the questionnaire.

Table 8b: Respondent perceptions about barriers to create larger integrated systems, by region

Challenges include		Overall	Other HRR	Boston HRR
Total	Subjects	567	126	441
Pay allocation difficulty- docs	Missing (n) % SA or A	33 90.07	6 89.17	27 90.34
Pay allocation difficulty: docs/hosp	Missing (n) % SA or A	37 92.83	7 93.28	30 92.7
Inadequate leadership	Missing (n) % SA or A	35 67.48	6 75.83	29 65.05
Antitrust laws	Missing (n) % SA or A	85 61.83	19 62.62	66 61.6
Inadequate health IT	Missing (n) % SA or A	33 72.85	7 74.79	26 72.29
Inadequate performance measurement	Missing (n) % SA or A	30 79.33	5 79.34	25 79.33
Inadequate risk adjust tools	Missing (n) % SA or A	48 81.7	9 80.34	39 82.09
Inadequate risk mgmt tools	Missing (n) % SA or A	44 75.72	10 76.72	34 75.43
Inadequate PCP numbers	Missing (n) % SA or A	38 78.64	7 78.99	31 78.54
Inadequate doc skills	Missing (n) % SA or A	50 61.7	8 66.1	42 60.4

Percent Strongly Agree or Agree with each item. Corresponds to item C2 on the questionnaire.

Table 8c: Respondent perceptions about barriers to create larger integrated systems, by specialty

Challenges include		Overall	Specialist	PCP
Total	Subjects	571	255	316
Pay allocation difficulty- docs	Missing (n) % SA or A	33 89.78	10 87.35	23 91.81
Pay allocation difficulty: docs/hosp	Missing (n) % SA or A	37 92.7	12 94.24	25 91.41
Inadequate leadership	Missing (n) % SA or A	36 67.29	13 67.36	23 67.24
Antitrust laws	Missing (n) % SA or A	86 61.65	28 70.48	58 53.88
Inadequate health IT	Missing (n) % SA or A	34 72.63	12 73.25	22 72.11
Inadequate performance measurement	Missing (n) % SA or A	30 79.11	11 81.97	19 76.77
Inadequate risk adjust tools	Missing (n) % SA or A	48 81.45	15 83.75	33 79.51
Inadequate risk mgmt tools	Missing (n) % SA or A	44 75.52	16 81.59	28 70.49
Inadequate PCP numbers	Missing (n) % SA or A	39 78.38	17 76.05	22 80.27
Inadequate doc skills	Missing (n) % SA or A	52 61.66	21 62.39	31 61.05

Per Percent Strongly Agree or Agree with each item. Corresponds to item C2 on the questionnaire.

Limitations

The survey has several notable limitations. First, the response rate was low, which increases its susceptibility to a response bias. For example, it is possible that survey responders differed systematically from non-responders in both directions. Non-responders could be more ready for payment changes or less ready. Second, several items were difficult for many physician respondents to answer in the pretesting, and had a large number of missing responses in the survey. Questions about current payment experiences in particular were very difficult for respondents. The survey, like nearly all surveys, used a cross-sectional design, meaning that it collected information at the same point in time on all of its items. Within such a design, it is difficult if not impossible to determine whether the physician perceptions and attitudes affect the ability to accept global payments. Finally, the survey captured physician perceptions about ongoing changes. According to one large insurer in MA, two thirds of physicians in the commonwealth will participate in their global payment contract program by this year, 2012. While global payment contracts appear to be an increasingly common arrangement between plans and provider organizations, there has been limited systematic information on how individual physicians perceive the changes and more importantly on their perceived ability to manage the care of their patients in this new environment. By capturing the self-reported perceptions of a large number of Massachusetts physicians, the survey begins to address these issues.

Conclusions

The Commonwealth of Massachusetts is undergoing active political debate about implementing new payment models between health insurance plans and physicians and physician groups. Early reports suggest that the majority of physicians in Massachusetts will have at least some patients in global payment contracts by 2012. In such contracts, physicians and physician groups would bear both clinical responsibility and financial risk for managing the medical care of their population of patients. This survey of physicians in Massachusetts finds that physicians have few or limited structures in place for population-level care management and coordination. For example, only 7% of respondents report having information systems in place that are able to exchange clinical information systematically in real time with all of the providers likely to be involved with a patient's care, including physicians and hospitals outside of their group.

Not surprising, only a minority of physicians surveyed believed that their group was ready to enter into global payment contracts and effectively manage care for their patient population. Many physicians surveyed also questioned the likelihood of potential benefits associated with global payments. In general, physicians practicing in larger groups consistently reported being more ready and able to make structural changes, enter into new payment contracts, and engage in care management and coordination for their population of patients.

Despite the skepticism and concerns raised by physicians in this survey, an increasing percentage of physicians in Massachusetts are entering into global payment contracts for at least some of their patients. One estimate for a large Massachusetts health plan suggests that by early next year, two thirds of Massachusetts physicians will have at least some patients in a global payment contract.

Indeed, it is unclear at this point the optimal or even necessary temporal relationship between having these structural factors, e.g., comprehensive clinical information systems, and payment changes. For example, it is possible that payment changes could stimulate structural changes such as improvements in clinical information exchange or creation of larger, more clinically integrated physician groups. This survey's findings do suggest that there are a number of opportunities to encourage successful implementation of any payment changes, including technical assistance for implementing any structural changes, and thoughtful consideration of the order and timing of any milestones during implementation.