



COMMONWEALTH OF MASSACHUSETTS  
HEALTH POLICY COMMISSION

REVIEW OF PARTNERS HEALTHCARE SYSTEM'S  
PROPOSED ACQUISITION OF  
HALLMARK HEALTH CORPORATION  
(HPC-CMIR-2013-4)

PURSUANT TO M.G.L. c. 6D, § 13

FINAL REPORT  
SEPTEMBER 3, 2014

# INTRODUCTION

The Health Policy Commission (HPC) was established in 2012 by the Commonwealth's landmark health care cost containment law, Chapter 224 of the Acts of 2012, "An Act Improving the Quality of Health Care and Reducing Costs through Increased Transparency, Efficiency, and Innovation" (Chapter 224). The HPC is an independent state agency governed by an 11-member board with diverse experience in health care. It is charged with developing health policy to reduce overall cost growth while improving the quality of care, and monitoring the health care delivery and payment systems in Massachusetts.

Recognizing that excessive health care costs are crowding out other economic needs for government, households, and businesses, Chapter 224 set a statewide target for a sustainable rate of growth of total health care expenditures. This benchmark is set at 3.6% for 2014. This target is not a short-term goal, but one that is envisioned to be maintained as outlined in the law for the next decade and beyond. While recent spending growth in Massachusetts has slowed in line with slower national growth, sustaining lower growth rates over the long term will require a concerted effort to advance a more competitive, value-based health care market and efficient health care delivery system.

Chapter 224 tasks the HPC with many important responsibilities to support the Commonwealth's efforts to meet the health care cost growth benchmark, including to "foster innovative health care delivery and payment models" as well as to "monitor and review the impact of changes within the health care marketplace."<sup>1</sup> These dual values of **innovation** and **accountability** are at the core of that landmark legislation and the HPC's mission, and both are necessary to advance the goal of a more affordable and effective health care system.

A significant aspect of the health care system that requires more transparency and accountability is the evolving structure and composition of the provider market. Provider changes, including consolidations and alignments, have been shown to impact health care market functioning, and thus the performance of our health care system in delivering high quality, cost effective care. Due to confidential payer-provider contracts and limited information about provider organizations, the mechanisms by which market changes impact the cost, quality, and availability of health care services have not been apparent to government, consumers, and businesses which ultimately bear the costs of the health care system.

Chapter 224 directs the HPC to monitor this aspect of the Massachusetts health care system. Through the filing of notices of material change by provider organizations,<sup>2</sup> the HPC tracks the frequency, type, and nature of changes in our health care market.<sup>3</sup> The HPC may also engage in a more comprehensive review of particular transactions anticipated to have a significant impact on health care costs or market functioning. The result of such "cost and market impact reviews" (CMIRs) is a public report detailing the HPC's findings. In order to allow for public assessment of the findings, the transactions may not be finalized until the HPC issues its Final Report. Where appropriate, such reports may identify

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<sup>1</sup> MASS. GEN. LAWS ch. 6D, § 5 (2012).

<sup>2</sup> In this report, we use the terms provider organization, defined in MASS. GEN. LAWS ch. 6D, § 1 (2012), and provider system interchangeably.

<sup>3</sup> See MASS. GEN. LAWS ch. 6D, § 13 (2012) (requiring health care providers to notify the HPC before making material changes to their operations or governance). See also MASS. HEALTH POLICY COMM'N, BULLETIN 2013-01: INTERIM GUIDANCE FOR PROVIDERS AND PROVIDER ORGANIZATIONS RELATIVE TO NOTICE OF MATERIAL CHANGE (Mar. 12, 2013), available at <http://www.mass.gov/anf/docs/hpc/material-change-notices/20130312-interim-guidance-on-material-change-and-notice-form.pdf>.

areas for further review or monitoring, or be referred to other state agencies in support of their work on behalf of health care consumers.<sup>4</sup>

The HPC conducts its work during a period of dynamic change among provider organizations, including accelerating consolidation and new contractual and clinical alignments. In particular, hospital acquisition of physicians and the transition from independent or affiliated practices to employment models are significant trends both in Massachusetts and nationally, as is increased presence of alternative payment models focused on promoting accountable care. Through the CMIR process we seek to improve our understanding of these trends and other market developments affecting short and long term health care spending, quality, and consumer access. In addition, our reviews enable us to identify particular factors for market participants to consider in proposing and responding to potential future organizational changes. Through this process, we seek to encourage providers and payers alike to evaluate and take steps to minimize negative impacts and enhance positive outcomes of any given material change.

This document reports on the HPC's third CMIR, examining the proposed acquisition of Hallmark Health System (Hallmark) and its affiliates by Partners HealthCare System (Partners). Based on criteria articulated in Chapter 224 and informed by the facts of the transaction, we analyzed the likely impact of this acquisition, relying on the best available data and information. Our work included review of the parties' stated goals for the transaction and the information they provided in support of how and when these alignments would result in efficiencies and care delivery improvements.

Concurrent with the HPC's review, the Massachusetts Attorney General (AGO), Partners, and related health care providers filed a proposed consent judgment that would settle an extensive law enforcement investigation into Partners' market conduct and plans to acquire Hallmark, South Shore Hospital (the subject of the HPC's first CMIR), and their related physicians. Since that investigation includes the Hallmark transaction under review in this CMIR, aspects of this report address some topics common to that law enforcement review.<sup>5</sup>

As discussed above, under Chapter 224, the HPC's CMIRs are intended to provide for public assessment of a spectrum of potential impacts from market changes, ranging from changes in cost and quality performance to impacts on the availability and accessibility of services. To the HPC's knowledge, no other state has authorized such a policy-oriented, prospective review of the impact of health care transactions that is distinct from an administrative determination of need or law enforcement review of antitrust or consumer protection concerns. This public reporting process is a unique opportunity to enhance the transparency of significant changes to our health care system, and can inform and complement the many important efforts of other agencies, such as the AGO, the Center for Health Information and Analysis (CHIA), the Department of Public Health (DPH), and the Division of Insurance (DOI), in monitoring and overseeing our health care market. Consistent with the goals of Chapter 224, comprehensive and evidence-based reporting of provider organization performance brings important information to the public dialogue about how to develop a more affordable, effective, and accountable health care system.

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<sup>4</sup> For example, MASS. GEN. LAWS ch. 6D, §13(f) (2012) requires referral of the CMIR report to the state Attorney General's Office if the HPC finds that a provider under review (1) has a dominant market share in its service area, (2) charges prices that are materially higher than the median prices in its service area for the same services, and (3) has a health status adjusted total medical expense that is materially higher than the median in its service area.

<sup>5</sup> As authorized by the court, the HPC filed a public comment concerning the proposed settlement on July 17, 2014. Public Comment by the Mass. Health Policy Comm'n In Re Comm. of Mass. v. Partners Health Sys., Inc., South Shore Health and Ed. Corp., and Hallmark Health Corp., Civil Action No. 14-2033-BLS (Mass. Superior Ct. Jul. 17, 2014) [hereinafter HPC Comment], available at <http://www.mass.gov/ago/docs/partners/hpc.pdf>.

# TABLE OF CONTENTS

Introduction	
Acronyms and Abbreviations	ii
Naming Conventions	iii
Executive Summary	1
I. Analytic Approach and Data Reliances	5
II. Overview of the Parties and the Transaction	8
III. Analysis of Parties' Baseline Performance (2010 – 2013)	17
IV. Impact Projections (2014 onward)	41
V. Conclusion	77
Acknowledgements	
Exhibit A: Partners HealthCare and Hallmark Health's Response to Preliminary Report	
Exhibit B: HPC Analysis of Partners HealthCare and Hallmark Health's Response to Preliminary Report	
Exhibit C: Expert Statements by Analysis Group, Freedman HealthCare, Gorman Actuarial and Health Strategies & Solutions	

## ACRONYMS AND ABBREVIATIONS

AGO	Massachusetts Attorney General's Office
AHRQ	Agency for Healthcare Research and Quality
AMC	Academic Medical Center
APCD	All-Payer Claims Database
Chapter 224	Chapter 224 of the Acts of 2012
CHIA	Massachusetts Center for Health Information and Analysis
CHIP	Children's Health Insurance Program
CLABSI	Central Line Associated Blood Stream Infections
CMIR	Cost and Market Impact Review
CMS	Centers for Medicare and Medicaid Services
DOI	Massachusetts Division of Insurance
DOJ	United States Department of Justice
DPH	Massachusetts Department of Public Health
ED	Emergency Department
FTC	Federal Trade Commission
FY	Fiscal Year
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems
HEDIS	Healthcare Effectiveness Data and Information Set
HHI	Herfindahl-Hirschman Index
HIT	Health Information Technology
HMO	Health Maintenance Organization
HPC	Health Policy Commission
IP	Inpatient
Mass-DAC	Massachusetts Data Analysis Center
MHDC	Massachusetts Health Data Consortium
MHQP	Massachusetts Health Quality Partners
NPSR	Net Patient Service Revenue
OP	Outpatient
PCP	Primary Care Physician
PHM	Population Health Management
PHO	Physician Hospital Organization
POS	Point of Service
PPO	Preferred Provider Organization
PSA	Primary Service Area
RPO	Registered Provider Organization
RSO	Regional Service Organization
SCIP	Surgical Care Improvement Project
TME	Total Medical Expenses

# NAMING CONVENTIONS

## Parties and Related Organizations

BWH	Brigham and Women's Hospital
Cooley Dickinson	Cooley Dickinson Hospital
Faulkner	Brigham and Women's Faulkner Hospital
Hallmark	Hallmark Health System
Hallmark-LMH	Lawrence Memorial Hospital
Hallmark-MWH	Melrose-Wakefield Hospital
HHC	Hallmark Health Corporation
HHMA	Hallmark Health Medical Associates
HHPHO	Hallmark Health Physician Hospital Organization
Martha's Vineyard	Martha's Vineyard Hospital
McLean	McLean Hospital
MGH	Massachusetts General Hospital
MGPO	Massachusetts General Physicians Organization
Nantucket Cottage	Nantucket Cottage Hospital
Newton-Wellesley	Newton-Wellesley Hospital
NSHS	North Shore Health System
NSMC	North Shore Medical Center
NSPG	North Shore Physicians Group
NSMC-Salem	North Shore Medical Center Salem Hospital
NSMC-Union	North Shore Medical Center Union Hospital
Partners	Partners HealthCare System
PCHI	Partners Community Healthcare Inc.

## Payers

BCBS	Blue Cross Blue Shield of Massachusetts
HPHC	Harvard Pilgrim Health Care
THP	Tufts Health Plan

## Other Providers

Atrius	Atrius Health
BIDMC	Beth Israel Deaconess Medical Center
CHA	Cambridge Health Alliance
Lahey HMC	Lahey Hospital & Medical Center
Mount Auburn	Mount Auburn Hospital
NEQCA	New England Quality Care Alliance
Steward	Steward Health Care System
Tufts MC	Tufts Medical Center
UMass	UMass Memorial Health Care

# EXECUTIVE SUMMARY

On January 31, 2014, Partners HealthCare System (Partners) and Hallmark Health Corporation (HHC) executed an Affiliation Agreement for Partners to acquire Hallmark Health System (Hallmark) and its affiliates, including two acute care hospitals (Lawrence Memorial Hospital in Medford and Melrose-Wakefield Hospital in Melrose) and multiple outpatient facilities, making Hallmark a fully integrated, community-based member of the Partners system.<sup>6</sup> The transaction builds on an eighteen-year clinical and contracting relationship between the parties.<sup>7</sup> The parties state that they are committed to “accepting responsibility (and financial risk) for controlling the total medical expenses . . . for patients cared for by their primary care physicians in the . . . communities served by [the parties].”<sup>8</sup> In order to achieve this objective, the parties seek to implement a “robust population health management (PHM) model” in their joint service area,<sup>9</sup> which they state will require relocating and rationalizing facilities and service lines, expanding and more fully integrating their primary care networks, and investing in integrated information systems.

Following a 30-day initial review, the Health Policy Commission (HPC) determined that the transaction was likely to have a significant impact on costs and market functioning in northeastern Massachusetts and warranted further review.<sup>10</sup> On July 2, 2014, the HPC issued a Preliminary Report presenting our analysis and the key findings from our review. Following a 30-day opportunity for the parties to respond to these findings, the HPC now issues this Final Report. The parties’ response to our findings, and the HPC’s analysis of their response, are attached to this Final Report as Exhibits A and B, respectively.<sup>11</sup>

This report is organized into five parts. Part I outlines our analytic approach to conducting CMIRs. Part II describes the parties to this CMIR and their goals and plans for undertaking the transaction. Parts III and IV then present our findings. Part III reports on the parties’ baseline performance leading up to the transaction, and Part IV reports on the projected

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<sup>6</sup> On November 8 and 12, 2013, Partners and HHC filed Notices of Material Change with the HPC pursuant to MASS. GEN. LAWS ch. 6D, § 13 (2012).

<sup>7</sup> As part of this relationship, Hallmark contracts with most of the major payers through Partners Community Healthcare Inc. (PCHI) for both its health maintenance organization (HMO)/point of service (POS) and preferred provider organization (PPO) rates for both its physician and hospital services. *See also infra* note 37 and accompanying text (noting the history of Hallmark’s joint contracting relationship with PCHI).

<sup>8</sup> Application by Hallmark Health System, Inc. for Determination of Need under 105 C.M.R. 100.600-603 for Change of Ownership of Hallmark Health System, Attachment G, Affiliation Agreement, Art. 1, 4.5 (Apr. 4, 2014) [hereinafter Affiliation Agreement].

<sup>9</sup> The parties describe their joint service area as the “Northern Corridor,” which is comprised of the combined primary and secondary service areas of Hallmark (Lawrence Memorial Hospital and Melrose-Wakefield Hospital campuses) and North Shore Medical Center (NSMC) (Union and Salem campuses). *Id.* at Exh. 4.4.1-A.

<sup>10</sup> *See* MASS. HEALTH POLICY COMM’N, MINUTES OF THE HEALTH POLICY COMM’N (Dec. 18, 2013) (approving continuation of the Cost and Market Impact Review of the Partners/Hallmark merger).

<sup>11</sup> *See generally* Exh. A: (Partners HealthCare and Hallmark Health’s Response to the Health Policy Commission’s Preliminary CMIR Report dated July 2, 2014 (Aug. 1, 2014) [hereinafter Written Response], Exh. B: HPC Analysis of Partners HealthCare and Hallmark Health’s Response to the Health Policy Commission’s Preliminary CMIR Report dated July 2, 2014 [hereinafter HPC Analysis of the Written Response].

impact of the transaction on that baseline. We conclude in Part V. Below is a summary of the findings presented in Parts III and IV:

1. **Cost Profile:** Partners and Hallmark have the highest share of inpatient and primary care services in their relevant service areas. In each region where Partners operates, its hospitals have higher prices than nearly all other area hospitals, and Partners' physicians have some of the highest prices in the state. Hallmark's prices are lower than those of other Partners hospitals and physician groups. Partners has higher health status adjusted total medical expenses (TME) than Hallmark, due in part to its higher prices.
2. **Quality Profile:** Partners is generally a strong quality performer, consistently exceeding Massachusetts and national averages across a spectrum of measures. Hallmark's hospitals have slightly above-average inpatient quality compared to state and national benchmarks and Hallmark's physician groups generally perform at or slightly below the state average among Massachusetts physician groups.
3. **Access Profile:** Hallmark and North Shore Medical Center (NSMC) provide a range of inpatient and outpatient services, including behavioral health, that are important to their local communities. While northeastern Massachusetts appears to have some excess inpatient bed capacity, evidence indicates there is likely a need for additional behavioral health capacity. While Partners' hospitals generally care for higher proportions of commercially insured patients and lower proportions of Medicaid patients than other area hospitals, the exception is their hospital in northeastern Massachusetts, NSMC, which has a relatively high government payer mix. The Hallmark hospitals also have a relatively high government payer mix, particularly of Medicare patients, and a particularly high mix of Medicare behavioral health patients at Lawrence Memorial Hospital.
4. **Cost Impact:** This transaction will reinforce Partners' position as the provider with the highest share of inpatient and primary care services in its northeastern Massachusetts service areas. Over time, this transaction is anticipated to increase spending in northeastern Massachusetts by an estimated \$15.5 million to \$23 million per year for the three major commercial payers due to material price effects, which are not expected to be offset by commensurate savings from decreased utilization through population health management (PHM).
5. **Quality Impact:** The differences in Partners and Hallmark's historic quality performance indicate potential for the transaction to drive quality improvement. However, Partners and Hallmark have already been affiliated for nearly 20 years, including joint clinical and contracting efforts, and it is unclear how this merger is necessary to improve clinical quality in ways the parties' longstanding affiliation has not.
6. **Access Impact:** The parties have proposed significant changes to care delivery that have the potential to expand access to a number of services in northeastern Massachusetts. However, the parties' plans, including those submitted in response to the Preliminary Report, lack critical information necessary to evaluate the extent to which such potential will be realized. Given Hallmark and NSMC's high government payer mix, the proposed

reconfiguration and relocation of services is anticipated to impact especially vulnerable populations as they seek to access services at new, more distant locations.

Concurrent with the HPC's review, the Massachusetts Attorney General (AGO), Partners, and related health care providers filed a proposed consent judgment (proposed settlement) in state court that would settle an extensive law enforcement investigation into Partners' market conduct and recent expansion plans.<sup>12</sup> Among other provisions, this agreement would allow Partners to acquire South Shore Hospital, Hallmark, and their related providers, but includes provisions to constrain Partners' contracting practices, network growth, and prices for the next five to ten years. This agreement is designed to alter Partners' negotiating power and constrain costs and growth across its entire network, including mitigating some of the total medical spending increases anticipated in connection with the Hallmark and South Shore transactions. The agreement also requires the AGO and Partners to confer on mitigating any material price impacts identified by the HPC in this CMIR. As authorized by the court, the HPC filed a public comment concerning the proposed settlement on July 17, 2014.<sup>13</sup>

This transaction is projected to reinforce Partners' market power and increase medical spending in northeastern Massachusetts, notwithstanding the proposed settlement. For example, the material price impact of changes in site of patient care across differently priced providers – such as anticipated shifts in care to Partners providers in connection with this transaction – are not fully addressed by the current agreement. Specifically, increased spending due to shifts in patient flow to higher-priced providers is not included in the agreement's unit price constraint, but rather would be measured as increases in TME. Since the agreement only monitors the TME for Partners' commercial risk business, anticipated increases in TME as Partners grows its non-risk books of business, currently including Preferred Provider Organization (PPO) and non-risk Health Maintenance Organization (HMO)/Point of Service (POS) patients, are not monitored. The latest publicly filed data by Partners (for 2012) indicates that the commercial risk business monitored by the TME provision of the agreement is about 11% of Partners' total commercial business.<sup>14</sup> Over time, the increased spending baseline from such site of care effects will impact consumers and payers in northeastern Massachusetts.

Regarding unit price increases, the agreement limits average price growth across all Partners providers (academic providers as one group and community providers as another) to no more than the rate of general inflation for the next 6.5 years, and separately holds the South Shore providers, as an individual group, to this same cap. However, Partners retains flexibility to allocate price increases across providers in each group to optimize revenue and market position, including allocating price increases to certain community providers in excess of general inflation. If Partners, as we project, increases Hallmark's rates to be consistent with those that

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<sup>12</sup> Joint Motion for Entry of Final Judgment by Consent, In Re Comm. of Mass. v. Partners Health Sys., Inc., South Shore Health and Ed. Corp., and Hallmark Health Corp., Civil Action No. 14-2033-BLS (Mass. Superior Ct. June 24, 2014) [hereinafter Proposed Settlement], available at <http://www.mass.gov/ago/docs/press/2014/partners-settlement-062414.pdf>.

<sup>13</sup> See HPC Comment, *supra* note 5.

<sup>14</sup> See MASS. HEALTH POLICY COMM'N, Annual Cost Trends Hearing (2013), Pre-Filed Written Testimony of Partners HealthCare System, Response to Exh. C, Q.5, available at <http://www.mass.gov/anf/docs/hpc/attachment-b-for-phs.xlsx> [hereinafter Partners Pre-Filed Testimony]. See also HPC Comment, *supra* note 5, at 4.

prevail at its other owned community providers, such increases will set a permanently increased baseline upon which future price increases would be negotiated and will permanently increase total medical spending, and premiums, in an area of the state that has thus far not experienced the market impact of a local, high-priced Partners facility. Additionally, without lasting change to the market structures and incentives that underlie the operation of bargaining leverage, there are inherent limitations to the ability of time-limited price constraints to contain costs long-term.<sup>15</sup> The findings of this report thus bear on the need for additional or alternative commitments by the parties to those set forth in the agreement to address transaction-specific impacts.

In summary, based on our review, we find that the proposed transaction between Partners and Hallmark is likely to increase health care spending in northeastern Massachusetts, reinforce Partners' market power, and, over time, increase premiums for employers and consumers. While the parties have described PHM initiatives that have the potential to reduce total medical spending, those potential savings are unlikely to offset the projected increases to health care spending. At the same time, this transaction has the potential to improve quality and increase access to certain health care services. The parties' plans, including those submitted in response to the Preliminary Report, lack critical information to enable us to assess the likelihood that this potential will be realized, or confirm that potential adverse impacts to vulnerable populations will be sufficiently mitigated.

Based on these findings, the HPC concludes that this transaction warrants further review and consideration of mitigation of transaction-specific impacts, and refers this report to the AGO pursuant to MASS. GEN. LAWS ch. 6D, § 13. In particular, we note that the parties have consistently advocated for the proposed transaction on the basis that it will lower total medical spending, and have publicly stated their purpose in consolidating is not to raise prices. Given this perspective, the parties should consider committing to a lower level of total medical spending, and no transaction-related increases in prices, across all books of business for the operations and providers described in their transaction materials, whom they state will achieve this lowered spending.

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<sup>15</sup> In other circumstances where merging providers have been subject to a price cap, prices have risen after the cap's expiration. See *infra* note 166.

# I. ANALYTIC APPROACH AND DATA RELIANCES

## A. ANALYTIC APPROACH

In structuring a CMIR, we take the following steps. First, we identify the primary areas of impact for the Health Policy Commission (HPC) to study. MASS. GEN. LAWS ch. 6D, § 13 tasks the HPC with examining impact in three interrelated areas:<sup>16</sup>

1. **Costs.** The statute directs the HPC to examine prices, total medical expenses (TME), provider costs and market share, and other measures of health care spending.
2. **Quality.** The statute directs the HPC to examine the quality of services provided, including patient experience.
3. **Access/market structure.** The statute directs the HPC to examine the availability and accessibility of services provided; the provider's role in serving at-risk, underserved, and government payer patient populations; the provider's role in providing low or negative margin services; the provider's methods for attracting patient volume and health care professionals; and the provider's impact on competing options for care delivery.

After identifying the primary areas for the HPC's review, we then gather detailed information in each of these areas. The HPC examines recent data to establish the parties' *baseline performance* in each of these areas prior to the transaction. The HPC then combines the parties' baseline performance with known details of the transaction, as well as the parties' goals and plans, to project the *impact of the transaction on baseline performance*. The analytic sections of this report are divided into two parts that mirror this framework: Part III addresses baseline performance and Part IV addresses impact analysis.

Within this general framework for CMIRs, the specific facts of a transaction, the availability of accurate data, and time constraints will affect the particular analyses included in our review of any given material change. We also seek to focus our work on analyses that complement, rather than duplicate, the work of other agencies. Future CMIRs may encompass new and evolving analyses, depending on the facts of a transaction, recent market developments, areas of public interest, and the availability of improved data resources, like an expanded All-Payer Claims Database (APCD) and Registered Provider Organization (RPO) information.<sup>17</sup>

## B. DATA RELIANCES

To conduct this review, we relied on the documents and data the parties produced to us in response to HPC information requests, and their own description of the transaction as presented

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<sup>16</sup> The HPC may also examine consumer concerns and any other factors it determines to be in the public interest. MASS. GEN. LAWS ch. 6D, § 13(d) (2012).

<sup>17</sup> *All-Payer Claims Database*, CTR. FOR HEALTH INFO. & ANALYSIS, <http://www.mass.gov/chia/researcher/hcf-data-resources/apcd/> (last visited Apr. 16, 2014) ("The APCD is comprised of medical, pharmacy, and dental claims, as well as information about member eligibility, benefit design, and providers for all payers covering Massachusetts residents."); MASS. GEN. LAWS ch. 6D, § 11 (2012) (requiring provider organizations to register biennially with the HPC and provide information on contractual and operating structures, capacity, and other requested information).

in their material change notices and other filings with the Commonwealth.<sup>18</sup> To further inform our review, the HPC obtained data and documents from a number of other sources. These include state agencies such as the AGO's Non-Profit Organizations/Public Charities Division and the Massachusetts Center for Health Information and Analysis (CHIA), from which we received provider-level data as well as claims-level data in the APCD; federal agencies such as the Agency for Healthcare Research and Quality (AHRQ) and the Centers for Medicare and Medicaid Services (CMS); private organizations that collect health care data such as the Massachusetts Health Data Consortium (MHDC) and Massachusetts Health Quality Partners (MHQP); payers such as Blue Cross Blue Shield of Massachusetts (BCBS), Harvard Pilgrim Health Care (HPHC), and Tufts Health Plan (THP); and health care providers operating in the same areas of the state as the parties. The HPC appreciates the cooperation of all entities that provided information in support of this review.

Where our analyses rely on nonpublic information produced by the parties or other market participants, MASS. GEN. LAWS ch. 6D, § 13 prohibits the HPC from disclosing such information without the consent of the producing entity, except in a preliminary or final CMIR report where “the commission believes that such disclosure should be made in the public interest after taking into account any privacy, trade secret or anti-competitive considerations.”<sup>19</sup> Consistent with this statutory requirement, this Final Report contains only limited disclosures of such confidential information where the HPC has determined that the public interest in disclosure outweighs privacy, trade secret, and anti-competitive considerations.

To assist in our review and analysis of information, the HPC engaged consultants with extensive experience evaluating provider systems and their impact on the health care market. Working with these experts, the HPC extensively analyzed the data and other materials provided. For each analysis, the HPC utilized the most recent, reliable data available. Because data—whether publicly reported or privately held—is usually generated on a variable schedule from entity to entity, the most recent and reliable data generally reflects 2012 data and sometimes 2013 or 2011. We have noted the applicable year for the underlying data throughout this report. Wherever possible, the HPC examined multiple years of data to analyze trends and to report on the consistency of findings over time. For data and materials produced by the parties and other market participants, the HPC tested the accuracy and consistency of the data collected to the extent possible, but also had to rely in large part on the producing party for the quality of the information provided.

Several of our analyses focus on the anticipated cost impact in the commercially insured market. In the commercially insured market, prices for health care services—whether fee-for-service, global budgets, or other forms of alternative payments—are established through private negotiations between payers and providers. The terms of these payer-provider contracts vary widely, both with regard to price and with regard to other material terms that impact health care

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<sup>18</sup> *E.g.*, Application by Hallmark Health System, Inc. for Determination of Need under 105 C.M.R. 100.600-603 for Change of Ownership of Hallmark Health System (Apr. 4, 2014).

<sup>19</sup> MASS. GEN. LAWS ch. 6D, § 13(c) (2012), *amended by* 2013 Mass. Acts 38, § 20.

costs and market functioning.<sup>20</sup> Within the commercial market, we focused our review on four payers, the three largest Massachusetts payers (BCBS, HPHC, THP) and a major national payer, which together account for more than 80% of the commercial market.<sup>21</sup> For future reports, we hope to have access to consolidated data on the entire health care market through the APCD, RPO program, and other resources.

Many of our analyses compare Hallmark and Partners' existing hospital in northeastern Massachusetts, NSMC, to other hospitals operating in the same area. These comparator hospitals, shown below, were identified based on geography, service offerings, and patient flow patterns, and are intended to reflect a set of hospitals that a local patient could reasonably choose as a substitute for the focal hospital:

- **North Shore Medical Center Salem Hospital and North Shore Medical Center Union Hospital (NSMC, jointly, or NSMC-Union and NSMC-Salem, individually):** Hallmark-Lawrence Memorial Hospital (Hallmark-LMH), Hallmark-Melrose-Wakefield Hospital (Hallmark-MWH), Lahey-Addison Gilbert Hospital, Lahey-Beverly Hospital, Lahey Hospital & Medical Center (Lahey HMC);
- **Lawrence Memorial Hospital and Melrose-Wakefield Hospital (Hallmark hospitals, jointly, or Hallmark-LMH and Hallmark-MWH, individually):** Cambridge Health Alliance (CHA), Lahey HMC, Mount Auburn Hospital (Mount Auburn), NSMC, Winchester Hospital (Winchester).

Given that the Hallmark hospitals and NSMC operate in similar regions, we often present their data together, along with data for their comparators.

Throughout this report, we seek to present data in the manner that most accurately reflects the current state of the market. For example, Cooley Dickinson Hospital (Cooley Dickinson), which was acquired by Partners in July 2013, is included in Partners' hospital statistics. Cooley Dickinson Physician Hospital Organization, which the HPC understands has not joined Partners' physician organization, Partners Community Healthcare Inc. (PCHI), is not included in PCHI's information. Other recent transactions, such as Beth Israel Deaconess Medical Center's acquisition of Jordan Hospital, as well as pending transactions that have passed necessary regulatory approvals, are also reflected throughout our data except where explicitly noted.

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<sup>20</sup> See, e.g., OFFICE OF ATT'Y GEN. MARTHA COAKLEY, EXAMINATION OF HEALTH CARE COST TRENDS AND COST DRIVERS PURSUANT TO G.L. C. 118G, § 6 ½(b): REPORT FOR ANNUAL PUBLIC HEARING 40-43 (Mar. 16, 2010) [hereinafter AGO 2010 COST TRENDS REPORT], available at <http://www.mass.gov/ago/docs/healthcare/2010-hcctd-full.pdf>.

<sup>21</sup> CTR. FOR HEALTH INFO. & ANALYSIS, ANNUAL REPORT ON THE MASSACHUSETTS HEALTH CARE MARKET, 1 (Aug. 2013) [hereinafter CHIA ANNUAL REPORT AUG. 2013], available at <http://www.mass.gov/chia/docs/r/pubs/13/ar-ma-health-care-market-2013.pdf>. This report relies primarily on data from BCBS, HPHC, and THP, whom we commonly refer to as the "three major payers" or the "three largest payers." Where we are able to include data from the major national payer with the data of these three largest payers, we refer to the group as "four major payers" in Massachusetts.

## II. OVERVIEW OF THE PARTIES AND THE TRANSACTION

On January 31, 2014, Partners HealthCare System (Partners) and Hallmark Health Corporation (HHC) executed an Affiliation Agreement for Partners to acquire HHC and its affiliates, including Hallmark Health System (Hallmark).<sup>22</sup> This section describes the parties and their proposed transaction.

### A. PARTNERS HEALTHCARE SYSTEM

Partners is the largest provider system in Massachusetts and, like most providers in Massachusetts, operates as a non-profit public charity. It was founded in 1994 by an affiliation between Brigham and Women's Hospital (BWH) and Massachusetts General Hospital (MGH). Partners owns eight general acute care hospitals<sup>23</sup> with a total of 2,793 licensed beds that operate across the following five regions within Massachusetts:

- **Boston:** BWH and MGH (academic medical centers) and Brigham and Women's Faulkner Hospital (community hospital)
- **Metro-West:** Newton-Wellesley
- **North Shore:** NSMC (two campuses, NSMC-Salem and NSMC-Union)
- **Cape and Islands:** Nantucket Cottage Hospital (Nantucket Cottage) and Martha's Vineyard Hospital (Martha's Vineyard)
- **Pioneer Valley:** Cooley Dickinson

Partners also contracts with most major payers on behalf of two non-owned affiliate hospitals, Hallmark and Emerson Hospital. BWH and MGH, Partners' largest hospitals, are academic medical centers (AMCs) that serve as principal teaching hospitals of Harvard Medical School. They are also the largest private hospital recipients of the National Institutes of Health funding in the nation.<sup>24</sup> BWH is clinically affiliated with South Shore Hospital and Cape Cod Healthcare, and MGH with Emerson Hospital and Hallmark. Both BWH and MGH have clinical affiliations with Dana Farber Cancer Institute and are the preferred tertiary/quaternary providers in Steward Health Care System's limited network insurance products through Fallon Community Health Plan and THP. Through NSMC, Partners owns and operates Salem Hospital (NSMC-Salem) and Union Hospital (NSMC-Union) in northeastern Massachusetts, located six miles apart.

In addition to its general acute care hospitals, Partners owns a psychiatric hospital (McLean Hospital), a network of rehabilitation facilities (Spaulding Rehabilitation Network), and a home care agency (Partners HealthCare at Home). Partners' managed care network, PCHI, negotiates contracts on behalf of more than 5,500 primary care physicians (PCPs) and specialists.

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<sup>22</sup> See *supra* note 6 (reporting filing dates for the parties' notices of material change).

<sup>23</sup> As referenced throughout this Report, Partners is seeking to acquire three more hospitals, South Shore Hospital and the two Hallmark Hospitals.

<sup>24</sup> See PARTNERS HEALTHCARE SYSTEM, Series L Bond Statement at A-3 (Dec. 9, 2011), available at <http://emma.msrb.org/ER539808-ER417769-ER819686.pdf>.

PCHI is organized into Regional Service Organizations (RSOs), which vary in size and structure.<sup>25</sup> Many of Partners' community hospitals have affiliated physician groups. For example, the physicians affiliated with NSMC are organized into North Shore Health System (NSHS) Physician Hospital Organization (PHO), which includes both physicians who are directly employed by Partners, as well as those who are not, but who are affiliated with Partners for contracting and clinical purposes.<sup>26</sup> The NSHS physicians receive varying rates depending on whether they are employed or affiliated.<sup>27</sup>

Partners has continued to grow in recent years. In October 2012, Partners acquired Neighborhood Health Plan, a Massachusetts payer with over 260,000 members. In July 2013, Partners acquired 140-bed Cooley Dickinson Hospital in Northampton, Massachusetts. Partners has also proposed acquiring South Shore Hospital and Harbor Medical Associates, the topic of the HPC's first Cost and Market Impact Review (CMIR), and upon which the HPC released a Final Report in February 2014.<sup>28</sup>

On June 24, 2014, the AGO, Partners, South Shore Health and Educational Corporation, and Hallmark Health Corporation filed a proposed consent judgment in Suffolk Superior Court that would settle an extensive law enforcement investigation into Partners' market conduct and plans to acquire Hallmark, South Shore Hospital, and their related physicians.<sup>29</sup> The proposed settlement includes provisions that:

- Allow payers to contract with Partners providers on a component basis. Academic providers and community providers would remain separate components for 10 years. The South Shore Hospital and Hallmark providers would each remain separate components for seven years and then become part of the community component;
- Prohibit joint contracting by Partners on behalf of non-owned physician group affiliates outside of its physician hospital organizations for 10 years;

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<sup>25</sup> PCHI's larger RSOs are tied to its AMCs. PCHI includes more than 1,000 PCPs and 3,500 specialists. PARTNERS HEALTHCARE, <http://www.partners.org/services/general/patient-care/community-based-programs/partners-community-healthcare-inc.aspx> (last visited Sept. 1, 2014).

<sup>26</sup> NSHS is comprised of approximately 600 physicians, more than one-third of which are employed by North Shore Physician Group (NSPG), the employed subgroup of NSHS. *About NSMC*, NORTH SHORE MED. CTR., [http://nsmc.partners.org/about\\_nsmc](http://nsmc.partners.org/about_nsmc) (last visited June 30, 2014); NORTH SHORE PHYSICIANS GRP., <http://www.northshorephysicians.org/> (last visited June 30, 2014).

<sup>27</sup> See *infra* note 91 regarding the difference between Partners' rates for its employed or "integrated" physicians and its affiliated physicians.

<sup>28</sup> MASS. HEALTH POLICY COMM'N, REVIEW OF PARTNERS HEALTHCARE SYSTEM'S PROPOSED ACQUISITIONS OF SOUTH SHORE HOSPITAL (HPC-CMIR-2013-1) AND HARBOR MEDICAL ASSOCIATES (HPC-CMIR-2013-2), PURSUANT TO M.G.L. C. 6D, § 13, FINAL REPORT (Feb. 19, 2014), available at <http://www.mass.gov/anf/docs/hpc/20140219-final-cmir-report-phs-ssh-hmc.pdf> [hereinafter PHS-SSH-HARBOR FINAL CMIR REPORT]. The HPC released its Preliminary Report of the CMIR on December 18, 2013. MASS. HEALTH POLICY COMM'N, REVIEW OF PARTNERS HEALTHCARE SYSTEM'S PROPOSED ACQUISITIONS OF SOUTH SHORE HOSPITAL (HPC-CMIR-2013-1) AND HARBOR MEDICAL ASSOCIATES (HPC-CMIR-2013-2), PURSUANT TO M.G.L. C. 6D, § 13, PRELIMINARY REPORT (Dec. 18, 2013), available at <http://www.mass.gov/anf/docs/hpc/hpc-preliminary-review-of-phs-ssh-harbor-12-18-2013.pdf>.

<sup>29</sup> See Proposed Settlement, *supra* note 12.

- Prohibit Partners' average price growth from exceeding the rate of general inflation and growth in its commercial risk TME from exceeding the HPC's cost growth benchmark for Partners' academic providers as a group, community providers (including Hallmark) as a group, and South Shore providers as a group for 6.5 years;
- For the next three years, limit the growth of Partners' physician network to 2012 levels (approximately 550 more physicians than current levels), and for two additional years, limit physician network growth to two percent each year; and
- For the next seven years, prohibits Partners from acquiring hospitals in eastern Massachusetts other than South Shore Hospital and Hallmark without AGO approval, with Emerson Hospital, in light of its existing joint contracting relationship with Partners, excepted from this AGO discretionary approval.<sup>30</sup>

## B. HALLMARK HEALTH SYSTEM

Founded in 1997, Hallmark Health System (Hallmark) serves residents in communities north of Boston, including Malden, Medford, Melrose and Wakefield.<sup>31</sup> Hallmark is a non-profit integrated health system that operates two acute care hospitals under a single license, Melrose-Wakefield Hospital (Hallmark-MWH) in Melrose and Lawrence Memorial Hospital (Hallmark-LMH) in Medford.<sup>32</sup> Located five miles apart, Hallmark-MWH and Hallmark-LMH have 174 and 132 licensed acute care beds, respectively. Both hospitals offer general acute care inpatient and outpatient services, including emergency and psychiatric care.<sup>33</sup> Hallmark has clinical affiliations with MGH for cardiology and Tufts Medical Center (Tufts MC) for neonatology. Hallmark also owns a number of outpatient facilities in northeastern Massachusetts, including a Stoneham outpatient campus that is the site of the Hallmark Health System Hematology and Oncology Center as well as the CHEM Centers for MRI and Radiation Oncology.<sup>34</sup>

Hallmark Health Physician Hospital Organization (HHPHO) is the managed care contracting organization for Hallmark's hospitals and physicians, including Hallmark's employed physicians in Hallmark Health Medical Associates, Inc. (HHMA).<sup>35</sup> HHPHO has

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<sup>30</sup> *Id.*

<sup>31</sup> Hallmark Health System, Inc. is one of several entities owned by Hallmark Health Corporation (HHC). Partners and HHC executed an Affiliation Agreement on January 31, 2014, pursuant to which Partners will acquire HHC and all of its affiliates. *See infra* Section II.C for details regarding the transaction.

<sup>32</sup> HALLMARK HEALTH CORP., NOTICE OF MATERIAL CHANGE TO THE HEALTH POLICY COMM'N (Nov. 12, 2013), AS REQUIRED UNDER MASS. GEN. LAWS ch. 6D § 13 (2012) [hereinafter HALLMARK NOTICE OF MATERIAL CHANGE].

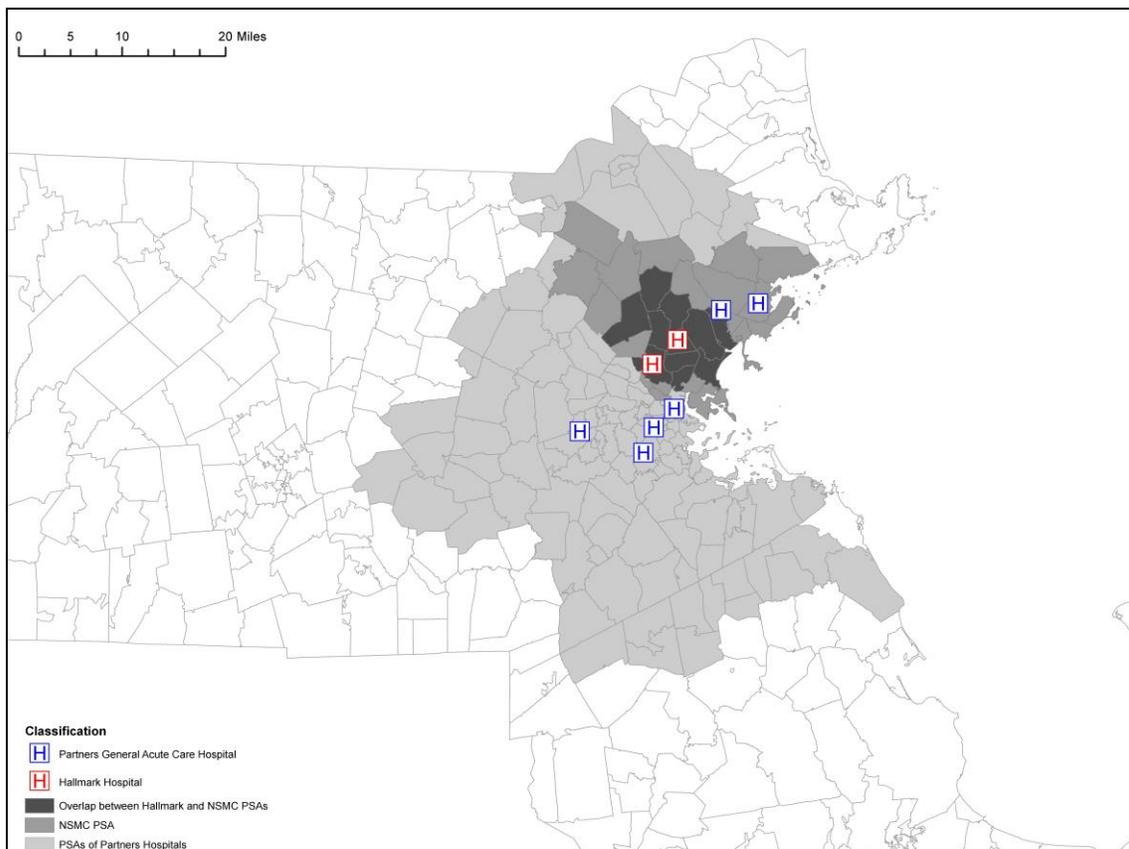
<sup>33</sup> Hallmark-MWH and Hallmark-LMH have 24 and 34 licensed inpatient psychiatric beds, respectively. Application by Hallmark Health System, Inc. for Determination of Need under 105 C.M.R. 100.600-603 for Change of Ownership of Hallmark Health System, Section III (Apr. 4, 2014) [hereinafter Hallmark Determination of Need].

<sup>34</sup> The Stoneham outpatient campus also includes the Comprehensive Breast Center and Montvale PET/CT. Hallmark also owns Hallmark Health Medical Center (Reading), Hallmark Health Visiting Nurse Association (HHVNA) and Hospice, Inc. (Malden), Lawrence Memorial/Regis College Nursing Radiography Programs (Medford), Malden Family Health Center (Malden), and the Dutton Center/Adult Supportive Day Care (Wakefield). *Hospitals & Health Centers*, HALLMARK HEALTH SYS., <http://www.hallmarkhealth.org/Hospitals-Health-Centers/> (last visited June 24, 2014).

<sup>35</sup> HHMA employs approximately 30 PCPs and has 23 practice locations in the following nine cities and towns north of Boston: Malden, Medford, Melrose, Reading, Revere, Saugus, Somerville, Stoneham, and Winthrop. Affiliation

approximately 400 participating physicians, more than 50 of whom are PCPs.<sup>36</sup> HHPHO currently contracts through PCHI for its hospital and physician HMO, POS, and PPO rates for most of the major payers.<sup>37</sup>

Below is a map of the parties' service areas. It shows the primary service areas (PSAs)<sup>38</sup> of Partners' general acute care hospitals in the greater Boston area in light gray and NSMC's PSA in medium gray. The Hallmark PSA is contained within and overlaps entirely with the NSMC PSA, and is shown in dark gray. The map also shows the location of Partners' general acute care hospitals in the greater Boston area (BWH, Faulkner, MGH, Newton-Wellesley, and the two NSMC campuses), as well as Hallmark's two acute care hospitals.



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Agreement, *supra* note 8, at Exh. 4.4.1-B; *Locations*, HALLMARK HEALTH MED. ASSOCS., <http://hhma.org/locations/> (last visited May 1, 2014).

<sup>36</sup> *Find a Provider*, HALLMARK HEALTH SYS., <http://physicians.hallmarkhealth.org/> (last visited June 30, 2014); Affiliation Agreement, *supra* note 8, at Exh. 4.4.1-B.

<sup>37</sup> For most of the major payers, HHPHO has contracted through Partners as a community regional service organization (RSO) of PCHI since the mid-1990s. HHPHO contracts directly with a number of smaller payers in Massachusetts, including many of the national payers.

<sup>38</sup> As discussed in Section IV.A.1, the HPC generally defines a hospital PSA to be the contiguous area closest to a hospital from which the hospital draws 75% of its commercial discharges. *See infra* note 177.

## C. THE PROPOSED TRANSACTION

On January 31, 2014, Partners and Hallmark Health Corporation (HHC) executed an Affiliation Agreement for Partners to acquire Hallmark Health System (Hallmark) and its affiliates, including Hallmark-LMH, Hallmark-MWH, and multiple outpatient facilities, making Hallmark a fully integrated, community-based member of the Partners system.<sup>39</sup> The transaction builds on an eighteen-year clinical and contracting relationship between the parties.<sup>40</sup> The parties state that they are committed to “accepting responsibility (and financial risk) for controlling the total medical expenses . . . for patients cared for by their primary care physicians in the . . . communities served by [the parties].”<sup>41</sup> In order to achieve this objective, the parties seek to implement a “robust population health management (PHM) model” in their joint service area,<sup>42</sup> which they state will require relocating and rationalizing facilities and service lines, expanding and more fully integrating their primary care networks, and investing in integrated information systems.

To accomplish these goals, the Affiliation Agreement sets out three principal initiatives that would be implemented over five years at a cost of approximately \$595 million at the two Hallmark hospitals, the two North Shore Medical Center (NSMC) hospitals, and Hallmark’s outpatient cancer care facilities in Stoneham.<sup>43</sup> The first initiative is the ***Program and Facilities Rationalization Initiative*** (Rationalization Initiative), which involves rationalizing services at the parties’ four acute care hospitals in the region<sup>44</sup> and decreasing the net number of medical/surgical beds at these facilities by up to 110. Under this initiative, two hospitals would continue to provide general acute care services, while the other two hospitals would be repurposed:

- **Hallmark-LMH** would become a 30-40 bed facility for ambulatory care and “short-stay” inpatient care lasting three days or fewer, operated under the MGH license.<sup>45</sup> Hallmark-LMH would have an urgent care center, certain expanded outpatient services,<sup>46</sup> and, during at least the transition period of Hallmark-LMH’s conversion (2-3 years), the parties have committed to keeping the emergency department open. The parties anticipate spending up to \$107 million on this conversion.<sup>47</sup>

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<sup>39</sup> See *supra* note 6 (reporting filing dates for the parties’ notices of material change).

<sup>40</sup> See *supra* note 37 and accompanying text (noting the history of HHPHO’s joint contracting relationship with PCHI).

<sup>41</sup> Affiliation Agreement, *supra* note 8, at Art. 1.

<sup>42</sup> See *supra* note 9 (describing the parties’ joint service area).

<sup>43</sup> Affiliation Agreement, *supra* note 8, at Exh. 4.4.3. Partners and Hallmark will make capital contributions of approximately \$245 and \$124 million, respectively, equaling \$370 million. In addition, the parties estimate capital investments by Partners of \$190 million at NSMC-Salem and \$30-\$40 million for the NSMC-Union reorganization. *Id.* at Exh. 4.4.1-A, Exh. 4.4.3.

<sup>44</sup> *Id.* at Exh. 4.4.1-A.

<sup>45</sup> The parties identify endoscopy and short stay operations as examples of short stay care. *Id.*

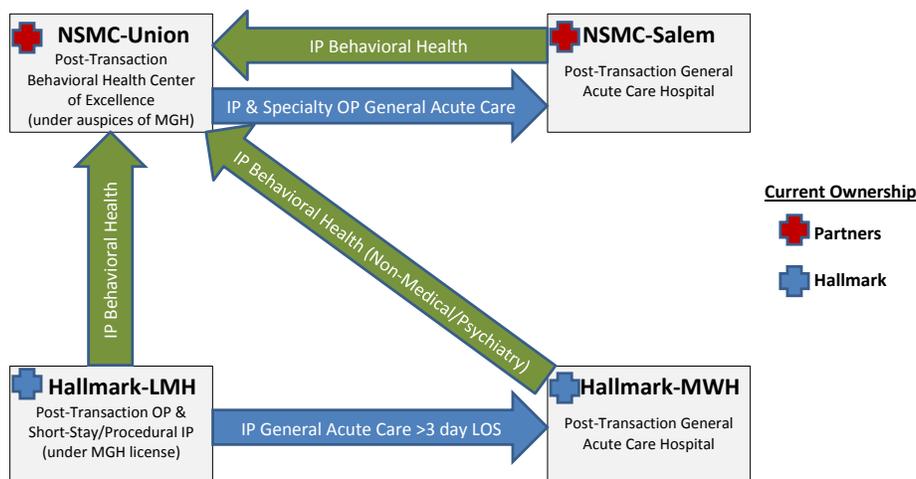
<sup>46</sup> For example, the parties propose expanding cardiology, gastroenterology, chronic disease management, and spine services.

<sup>47</sup> Affiliation Agreement, *supra* note 8, at Exh. 4.4.3.

- **Hallmark-MWH** would remain an acute care hospital under the Hallmark license. The hospital would receive an estimated \$152 million worth of substantial renovation, including expansion of capacity.
- **NSMC-Union** would host “Centers of Excellence” for primary care and behavioral health. All of the behavioral health beds from Hallmark-LMH and NSMC-Salem would be consolidated and relocated to NSMC-Union, where psychiatry, substance abuse, and behavioral health services would be operated by MGH.<sup>48</sup> “Non-medical/psychiatry cases” at Hallmark-MWH would also be relocated to NSMC-Union.<sup>49</sup> As a complement to these behavioral health services, primary care and specialty outpatient services would be operated by North Shore Physicians Group (NSPG) at the NSPG practice site adjacent to NSMC-Union. The parties have stated they intend to maintain emergency services at NSMC-Union, and will determine the level of emergency care capacity based on the needs of the community. The parties estimate these changes will require \$30-\$40 million in investments.<sup>50</sup>
- **NSMC-Salem** would continue to operate as a general acute care hospital and would receive investments of approximately \$190 million to expand its emergency department and to build two new inpatient floors.<sup>51</sup>
- Hallmark’s **Hematology and Oncology Center and the CHEM Center for Radiation Oncology** in Stoneham would be replaced by an expanded capacity MGH-licensed outpatient cancer center, the MGH Stoneham Cancer Center, at a cost of approximately \$45 million.<sup>52</sup>

The changes at the four hospital campuses are summarized in the chart below.

#### Proposed Repurposing and Rationalization of Hallmark and NSMC Hospitals



<sup>48</sup> *Id.* at Exh. 4.4.1-A.

<sup>49</sup> The parties state that they will “ensur[e] the preservation of licensed inpatient beds at MWH that will provide medical psychiatric care.” Written Response, *supra* note 11, at 16.

<sup>50</sup> Affiliation Agreement, *supra* note 8, at Exh. 4.4.3.

<sup>51</sup> *Id.* at Exh. 4.4.1-A.

<sup>52</sup> *Id.* at Exh. 4.4.3. The MGH Stoneham Cancer Center will increase capacity in both medical and radiation oncology that the parties believe will accommodate savings-generating redirection of care from MGH back into the community. *Id.* at 4.4.1-A.

As a second component of the Rationalization Initiative, the parties plan to reorganize and rationalize certain other service lines currently provided by Hallmark, NSMC, and MGH.<sup>53</sup> The parties estimate that these changes would generate savings for payers and consumers of \$11.8 – \$24.7 million per year by keeping patients in community settings who would otherwise have gone to MGH for care.

**The Population Health Management and Primary Care Network Development Initiative** (PCP Initiative) encompasses PHM strategies intended to better manage patients with chronic diseases and the recruitment and alignment of physicians to support PHM.<sup>54</sup> In order to succeed in PHM, the parties cite a need for joint coordination and investment in the key systems and infrastructure in the area, beginning with adequate levels of primary care coverage. The parties plan to recruit 25 “Net New PCPs”<sup>55</sup> and 17 “Replacement PCPs”<sup>56</sup> in Hallmark communities over a five-year period.<sup>57</sup> In addition, the Affiliation Agreement underscores the importance of tighter integration of physicians and other practitioners to support a “right care, right site” strategy for patients.<sup>58</sup> In line with this emphasis on tighter integration, the Agreement provides that Hallmark medical staff who are “interested in a more integrated relationship” will be given a choice of being directly employed by either Hallmark Health Medical Associates (HHMA), Partners’ community physician organization (newly created), or the Massachusetts General Physicians Organization (MGPO).<sup>59</sup>

The parties further plan under the PCP Initiative to develop urgent care centers in areas with the greatest need to serve lower acuity patients who currently seek treatment in emergency departments. The parties also describe enhancing access to primary care through the promotion of remote care services like virtual visits, and developing PHM interventions to address the needs of patients with chronic illnesses.<sup>60</sup> In total, the parties estimate that such PHM strategies will save between \$2 and 20 million per year, or an average of \$10.9 million per year in the first five years.

The third principal initiative, the **Information Technology and Infrastructure Initiative** (IT Initiative), aims to develop an integrated information technology (IT) and electronic medical

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<sup>53</sup> For example, the parties plan to establish joint service lines in obstetrics and oncology. Additional proposed service line collaborations include cardiology, orthopedics and digestive health. The joint service lines will be subject to MGH oversight, policies and standard of care, and MGH clinicians will participate in and/or lead most of the joint service lines. *Id.*

<sup>54</sup> *Id.* at Exh. 4.4.1-B.

<sup>55</sup> The parties describe these “Net New PCPs” as additional PCPs needed in various communities in the Hallmark service area, and project an investment of \$12.5 million to recruit them over five years. *Id.*

<sup>56</sup> “Replacement PCPs” are replacements for existing PCPs in the Hallmark service area, given projected physician retirements in the next five years. *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Id.* at Art. 5.6.1.

<sup>59</sup> *Id.*

<sup>60</sup> Example areas in which the parties are considering creating coordinated interventions include heart failure, diabetes, obesity, and pain management.

record (EMR) infrastructure to facilitate coordination among providers.<sup>61</sup> The parties’ estimated capital investments and savings are summarized in the table below.

<b>Summary of Parties’ Estimates of Provider Capital Expenditures, Provider Efficiencies, and Payer/Consumer Savings</b>		
<b>Estimated Provider Expenditures</b>		
		<b>Capital Expenditures (millions)</b>
<b>Rationalization Initiative</b>	Hallmark-LMH	\$107
	Hallmark-MWH	\$152
	NSMC-Union	\$30-\$40
	NSMC-Salem	\$190
	Stoneham Outpatient Cancer Center	\$45
<b>PCP Initiative</b>		\$12.5
<b>IT Initiative</b>		\$55
<b>TOTAL CAPITAL INVESTMENT</b>		<b>\$591.5-\$601.5</b>
<b>Estimated Provider Efficiencies</b>		
		<b>Annual Efficiencies (millions)</b>
<b>ANNUAL OPERATING &amp; OVERHEAD EFFICIENCIES<sup>62</sup></b>		<b>\$25 - \$30</b>
<b>Estimated Payer/Consumer Savings</b>		
		<b>Annual Savings (millions)</b>
<b>Care Redirection Savings</b>		\$11.8 - \$24.7
<b>PHM Savings</b>		\$2 - \$20
<b>AVERAGE ANNUAL SAVINGS (FY15-FY20)</b>		<b>\$13.8-44.7</b>

As shown above, the parties propose a significant capital investment in northeastern Massachusetts of approximately \$595 million. Pursuant to the HPC’s responsibility to enhance the transparency of significant changes to the health care system, we report here on several questions raised by our review regarding the size, purpose, and allocation of this investment. Given that premium dollars are one source of the provider revenue that funds capital spending, health care stakeholders have sought to better understand the public value of these investments, including how they will improve quality of and access to care, rather than lead to unintended consequences such as reinforcing or perpetuating market dysfunction. For example, market participants have raised concerns that the proposed investments, supported by historic payments not tied to value, will tend to perpetuate a non-value-based advantage of the parties to drive up

<sup>61</sup> *Id.* at Exh. 4.4.1-C. Hallmark’s current IT systems will be replaced with Partners eCare, which is a single system that incorporates electronic health records and revenue management systems. The parties also plan to implement certain “bridging technologies” until rollout of Partners eCare is completed. The parties project an investment of \$55 million.

<sup>62</sup> The parties describe the reduction of operational and overhead inefficiencies as “savings.” While reducing these inefficiencies should certainly result in savings to the parties, it is not clear that they will result in direct savings to payers or consumers, and so we report on this category of savings separately from direct payer/consumer savings. *See infra* Section IV.A.7 (analyzing these claims in further detail).

the level of competitive spending in the region, such as in the recruitment and retention of physicians, with negative effects for the delivery of high-value health care.<sup>63</sup>

To better understand how the proposed service reconfigurations and infrastructure changes will improve quality of or access to care, we invited the parties to provide specific evidence in their Written Response regarding how their prioritization of expenditures tracks to community need. For example, we raised questions regarding why the NSMC-Union campus, which is undergoing perhaps the most significant transformation in becoming a specialized behavioral health center of excellence, is anticipated to receive the smallest investment of the four hospital campuses. We also asked why the parties, especially in light of Partners' longstanding and commendable commitment to behavioral health, have not yet committed any minimum expenditures for certain urgently needed services related to the transaction, such as outpatient behavioral health,<sup>64</sup> but have committed significant portions of the \$595 million to expanding certain higher-margin specialty services for which we have not received similar evidence of unmet need.<sup>65</sup> Given the different margins associated with different service lines and payer populations, providers often rely on a balanced mix of services and payers to maintain financial viability and adequate access to all services. Thus, if the proposed investments drive changes in the service mix or payer mix of the parties or other area providers, these changes could have significant implications for how our health care system finances adequate access to all needed services, including low-margin services, for all populations.

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<sup>63</sup> See AGO 2010 COST TRENDS REPORT, *supra* note 20, at 38-39 (contrasting “highly paid providers [who] are able to fund depreciation consistently at or above industry standard” with “hospitals with lower prices [who] are unable to put comparable resources toward building maintenance or equipment acquisition,” resulting “in a loss of volume to better capitalized, more expensive hospitals”); MASS. HEALTH POLICY COMM’N, 2013 COST TRENDS REPORT, PURSUANT TO M.G.L. C. 6D, § 8(G), ANNUAL REPORT 34 (2014), *available at* <http://www.mass.gov/anf/docs/hpc/2013-cost-trends-report-full-report.pdf> (contrasting “hospitals with stronger market leverage [that] can earn higher revenues from commercial payers and therefore have less pressure to constrain their expenses” with “hospitals with limited market leverage [that] receive lower rates of commercial payer reimbursement and, under greater financial pressure, tend to be more aggressive at maintaining lower operating expenses”).

<sup>64</sup> Throughout this report, we include intensive outpatient and partial hospitalization services among “outpatient” behavioral health services, recognizing that behavioral health treatment occurs in a variety of settings that range in intensity and duration. Hallmark currently provides some such intensive outpatient services. *Intensive Outpatient Program at Community Counseling Services*, HALLMARK HEALTH SYS., <http://www.hallmarkhealth.org/Behavioral-Health/Psychiatric-Services/Intensive-Outpatient-Program.html> (last visited June 27, 2014). Intensive outpatient and partial hospitalization services generally involve regular individual and/or group counseling services during the day, before and after work or school, in the evenings, or on weekends to enable patients to apply treatment skills in real-world environments. These programs often include medical and psychiatric consultation, psychopharmacological consultation, medication management, and 24-hour crisis services. See D. Mee-Lee & D.R. Gastfriend, *Patient Placement Criteria*, in TEXTBOOK OF SUBSTANCE ABUSE TREATMENT Ch. 6, 82 (Galanter & Kleber eds., 4th ed. 2008); CENTER FOR SUBSTANCE ABUSE TREATMENT, SUBSTANCE ABUSE: CLINICAL ISSUES IN INTENSIVE OUTPATIENT TREATMENT Ch. 4 (2006), *available at* <http://www.ncbi.nlm.nih.gov/books/NBK64094/>.

<sup>65</sup> The parties’ planned investments mirror a national trend of expanded capacity for specific specialty services such as cardiology, cancer, orthopedics, women’s and children’s services, and GI endoscopy. According to a survey of senior hospital executives across the country, one of the factors motivating this trend is service line profitability. For more on expansion of specialty service lines and the underlying factors, see Robert A. Berenson et al., *Specialty-Service Lines: Salvos in The New Medical Arms Race*, 25 HEALTH AFFAIRS, 337, (2006), *available at* <http://content.healthaffairs.org/content/25/5/w337>.

As detailed in Section IV.C, the parties' Written Response includes only a high-level description of their approach to assessing community need. It does not show how or whether that general approach substantiated decisions to commit specific amounts to expanding certain higher-margin specialty services, like oncology, while the parties have yet to make any firm commitments or identify any minimum expenditures for expanding certain needed services such as behavioral health. The HPC remains concerned, in the absence of a robust and reliable methodology for assessing community need, that certain services may be expanded for purposes other than addressing unmet community need.

### III. ANALYSIS OF PARTIES' BASELINE PERFORMANCE (2010-2012)

To analyze the impact of a proposed transaction on costs, quality, and access, it is important to understand the parties' baseline performance in these areas, prior to the transaction. Part III examines the recent performance of Partners and Hallmark in each of these areas.

#### A. COST PROFILE

The law governing cost and market impact reviews directs the HPC to examine different measures of the parties' cost and financial performance, including their size, prices, health status adjusted TME, and market share. The HPC examined these measures over time and compared them to other providers to establish the parties' baseline performance leading up to the proposed transaction. In Part IV, we will combine the parties' current performance with details of the transactions and the parties' goals and plans to project the likely impacts of the transaction on health care costs.

Measures of financial condition and market share indicate the relative strength of a provider compared to competitors. Comparisons of provider health status adjusted TME and of relative prices (the relative amounts that payers pay providers for comparable services) show differences in provider efficiency and costs, both between the parties and compared to other area providers. In examining these elements of the parties' cost profile, the HPC found:

- Partners is in strong financial condition; Hallmark's financial position remains positive despite a recent decline in patient service revenue.
- Partners has the highest share of inpatient and primary care services in Hallmark's and NSMC's service areas.
- Partners' hospitals receive higher prices than Hallmark and other area hospitals.
- Partners' physician groups (excluding Hallmark) generally receive higher prices than Hallmark physicians and other area physician groups.
- Partners' physician groups (excluding Hallmark) generally have higher health status adjusted TME than Hallmark and other area physician groups.

1. Partners is in Strong Financial Condition; Hallmark’s Financial Position Is Positive Despite a Recent Decline in Patient Service Revenue.

The HPC reviewed audited financial statements for fiscal years (FY) 2009 through 2012 for Partners and Hallmark, and Hallmark’s FY 2013 audited financial statement. These statements show that Partners is in strong financial condition and Hallmark’s financial position is positive. Over the last four years, Partners’ total operating revenue increased by nearly 20% from \$7.5 billion in 2009 to nearly \$9 billion in 2012. Over this same period, Partners’ total net assets grew by 6.2% (over \$300 million). The following table shows key financial metrics for Partners compared to the next five largest health care systems in Massachusetts, as measured by net patient service revenue (NPSR). As shown below, Partners’ total net assets are more than double the combined assets of the next five largest systems in Massachusetts, and Partners has invested substantially more in its facilities and equipment than other systems, as reflected in its lower average age of plant.<sup>66</sup>

Financial Performance of Six Largest Massachusetts Provider Systems by NPSR (FY2011-2012) <sup>67</sup>						
	Partners	UMass	Atrius	Steward	BIDMC	Lahey <sup>68</sup>
NPSR (\$000)						
<b>FY 2011</b>	6,342,273	2,014,247	1,687,976	1,356,704	1,407,985	1,360,497
<b>FY 2012</b>	6,828,189	2,035,378	1,918,971	1,678,068	1,448,824	1,427,172

<sup>66</sup> Within the Partners system, NSMC’s financial performance is somewhat weaker than the other Partners hospitals. For example, although NSMC’s patient service revenue exceeds that of most other area community hospitals, as shown in the second table in this section, its operating margin is negative.

<sup>67</sup> See PricewaterhouseCoopers LLC, Consolidated Financial Statements: Partners HealthCare System, Inc. and Affiliates: Dec. 14, 2012; PricewaterhouseCoopers LLC, Consolidated Financial Statements: Partners HealthCare System, Inc. and Affiliates: Dec. 2, 2011; PricewaterhouseCoopers LLC, Consolidated Financial Statements with Supplemental Consolidating Information: UMass Memorial Health Care, Inc. and Affiliates: Dec. 21, 2012; PricewaterhouseCoopers LLC, Consolidated Financial Statements with Supplemental Consolidating Information: UMass Memorial Health Care, Inc. and Affiliates: Dec. 20, 2011; PricewaterhouseCoopers LLC, Consolidated Financial Statements: Atrius Health, Inc. and Affiliates: Apr. 23, 2013; PricewaterhouseCoopers LLC, Consolidated Financial Statements: Atrius Health, Inc. and Affiliates: May 11, 2012; Ernst & Young LLP, Consolidated Financial Statements: Steward Health Care System, LLC: April 2, 2013; Ernst & Young LLP, Consolidated Financial Statements: Steward Health Care System, LLC: Jan. 30, 2012; KPMG LLP, Consolidated Financial Statements and Other Financial Information: Beth Israel Deaconess Medical Center, Inc. and Affiliates: Dec. 20, 2012; KPMG LLP, Consolidated Financial Statements and Other Financial Information: Beth Israel Deaconess Medical Center, Inc. and Affiliates: Jan. 9, 2012; PricewaterhouseCoopers LLC, Consolidated Financial Statements: Lahey Clinic Foundation, Inc. and Affiliates: Jan. 18, 2013; PricewaterhouseCoopers LLC, Consolidated Financial Statements: Lahey Clinic Foundation, Inc. and Affiliates: Feb. 1, 2012; Deloitte & Touche, LLP, Consolidated Financial Statements: Northeast Health System, Inc. and Affiliates: Jan 18, 2013; Deloitte & Touche, LLP, Consolidated Financial Statements: Northeast Health System, Inc. and Affiliates: Jan 23, 2012.

<sup>68</sup> Lahey merged with Northeast Health System (Northeast) in 2012; consistent with the financial assessment presented in our prior report involving Lahey, we combined available financial data for the Lahey Clinic Foundation and Northeast Health System for FY 2010 – FY2012. The figures provided do not account for variations between the two organizations’ accounting practices or for transactions between the two companies. See MASS. HEALTH POLICY COMM’N, REVIEW OF LAHEY HEALTH SYSTEM’S PROPOSED ACQUISITION OF WINCHESTER HOSPITAL (HPC-CMIR-2013-3), PURSUANT TO M.G.L. C. 6D § 13, FINAL REPORT 10, n.33 (Apr. 16, 2014), available at <http://www.mass.gov/anf/docs/hpc/material-change-notices/20140522-final-cmir-report-lhs-wh.pdf> [hereinafter LAHEY-WINCHESTER FINAL CMIR REPORT].

<b>Total Operating Revenue (\$000)</b>						
<b>FY 2011</b>	8,481,112	2,204,754	1,740,119	1,604,185	1,758,738	1,401,986
<b>FY 2012</b>	8,981,337	2,223,984	2,007,603	1,963,164	1,795,614	1,475,233
<b>Operating Margin</b>						
<b>FY 2011</b>	2.7%	1.6%	3.0%	-2.8%	2.3%	4.3%
<b>FY 2012</b>	2.1%	0.2%	1.1%	-1.1%	1.8%	3.5%
<b>Total Net Assets (\$000)</b>						
<b>FY 2011</b>	5,453,587	561,797	269,253	95,565	787,346	531,350
<b>FY 2012</b>	5,282,679	603,524	297,521	21,322	913,739	554,445
<b>Current Ratio</b>						
<b>FY 2011</b>	2.4	1.8	1.3	0.9	3.5	1.9
<b>FY 2012</b>	2.6	1.7	1.4	1.0	3.3	2.0
<b>Days Cash on Hand</b>						
<b>FY 2011</b>	235	54	57	10	181	89
<b>FY 2012</b>	251	49	52	12	202	102
<b>Cash and Equivalents, and Readily Available Investments (\$000)</b>						
<b>FY 2011</b>	5,050,357	308,129	258,421	44,155	812,439	310,284
<b>FY 2012</b>	5,764,747	287,543	274,799	62,697	930,668	374,162
<b>Average Age of Plant</b>						
<b>FY 2011</b>	6.7	10.0	6.9	N/A	18.9	12.0
<b>FY 2012</b>	6.9	10.0	5.7	N/A	18.8	10.5

Notes

- (1) Net Patient Service Revenue (NPSR) is the total inpatient and outpatient revenue after deductions for free care charges and contractual adjustments. Provision for bad debt is also treated as an NPSR reduction. Variations in providers' methods of accounting for free care and bad debt may affect these figures.
- (2) Total Operating Revenue includes all revenues gained from everyday business, including NPSR.
- (3) Operating Margin measures the system's profitability from patient care services and other operations.
- (4) Total Net Assets is the system's total assets minus its liabilities.
- (5) Current Ratio measures the system's ability to meet its current liabilities with its current assets; a ratio of 1.0 or higher indicates that all current liabilities could be covered by the system's existing current assets.
- (6) Days Cash on Hand is the number of days of operating expenses that the system could pay with its current available cash, cash equivalents, and readily available investments.
- (7) Cash, Cash Equivalents, and Readily Available Investments refer to assets that are readily available to use (e.g., stocks, bonds, and internally designated funds that could be quickly liquidated). Variations in providers' methods of reporting their assets may affect these figures.
- (8) Average Age of Plant measures the average age of the system's facilities, including capital improvements and major equipment purchases. Steward's average age of plant is not included because comparable data were not available.

Hallmark's financial position is positive. Its total margin has been consistently high compared with those of area community hospitals, its cash reserves are robust, and its current ratio is strong. Hallmark's NPSR grew from FY 2009 to FY 2012 by 4.7%. Due to rising costs,

Hallmark's operating margin declined from 3.1% in FY 2009 to 2.4% in FY 2012,<sup>69</sup> but was consistently above average for Massachusetts community hospitals.<sup>70</sup> In FY 2013, Hallmark experienced a decline in NPSR, which resulted in a negative operating margin of -1%.<sup>71</sup> Significant investment income resulted in a positive total margin, and Hallmark's cash reserves and total assets continued to increase. Hallmark's higher average age of plant ratio indicates that continued investment is likely needed in its facilities, equipment, and/or infrastructure, which could be supported through this transaction.<sup>72</sup> Overall, our review of Hallmark's financials indicates that it is in a positive financial position despite the recent decrease in its NPSR.<sup>73</sup>

Financial Performance of Hallmark Compared to Area Community Hospitals (FY2011-2012) <sup>74</sup>					
	North Shore MC	Mt. Auburn	Hallmark	Winchester	CHA
NPSR (\$000)					
FY 2011	481,208	340,450	291,795	276,050	230,455
FY 2012	503,511	348,007	293,455	290,350	282,232

<sup>69</sup> Although Hallmark classifies income from investments as operating revenue in its audited financial statements, the parties' Written Response clarifies this income is not derived from operations. Written Response, *supra* note 11, at 8; HPC Analysis of the Written Response, *supra* note 11, at 24, note 85. Accordingly, the operating revenue and operating margin figures presented in this Final Report do not include Hallmark's investment income.

<sup>70</sup> See CTR. FOR HEALTH INFO. & ANALYSIS, MASS. ACUTE HOSP. FINANCIAL PERFORMANCE FISCAL YEAR 2013, 2 (May. 2014) [hereinafter CHIA FY13 ACUTE HOSP. PERFORMANCE], available at <http://www.mass.gov/chia/docs/r/qtr/2013-09-30/2014-04-29/fy13-hospital-financial-report.pdf> (showing an average operating margin of 2% for Massachusetts community hospitals in FY12).

<sup>71</sup> For market context, the average operating margin for Massachusetts hospitals generally declined in FY13; the one group of hospitals that did not experience a decline in average operating margins was AMCs. CHIA FY13 ACUTE HOSP. PERFORMANCE, *supra* note 70, at 2. Because FY13 audited financial statements are not yet available for all of the providers examined in our report, the HPC was unable to include an FY13 assessment in the financial tables in this section.

<sup>72</sup> See *supra* Section II.C for a summary of investments contemplated by the parties. As discussed in note 244, *infra*, and in the HPC Analysis of the Written Response at Section II.D, we have insufficient information to evaluate the amount of capital investment that may be needed at Hallmark, or the extent to which Hallmark could rationalize services absent the transaction.

<sup>73</sup> The Standard & Poor's credit rating statement relied upon by the parties in their Written Response describes Hallmark's balance sheet and investments as strong. See Martin Arrick, *Summary: Hallmark Health System, Massachusetts; Hospital*, STANDARD & POOR'S RATINGS SERVS. (July 17, 2014).

<sup>74</sup> KPMG LLP, Combined Financial Statements and Supplemental Schedules: Winchester Healthcare Management, Inc. and Affiliates: Dec. 20, 2012; KPMG LLP, Combined Financial Statements and Supplemental Schedules: Winchester Healthcare Management, Inc. and Affiliates: Dec. 22, 2011; Deloitte & Touche, LLP, Consolidated Financial Statements: Hallmark Health Corp. and Affiliates: Dec. 20, 2013; Deloitte & Touche, LLP, Consolidated Financial Statements: Hallmark Health Corp. and Affiliates: Jan. 18, 2012; KPMG LLP, Consolidated Financial Statements and Other Financial Information: Mount Auburn Hospital and Subsidiary: Dec. 19, 2012; KPMG LLP, Consolidated Financial Statements and Other Financial Information: Mount Auburn Hospital and Subsidiary: Jan. 9, 2012; PricewaterhouseCoopers LLC, Consolidated Financial Statements: Partners HealthCare System, Inc. and Affiliates: Dec. 14, 2012; PricewaterhouseCoopers LLC, Consolidated Financial Statements: Partners HealthCare System, Inc. and Affiliates: Dec. 2, 2011; PricewaterhouseCoopers LLC, Consolidated Financial Statements and Supplemental Schedules: Emerson Health System, Inc. and Affiliates: Dec. 20, 2012; PricewaterhouseCoopers LLC, Consolidated Financial Statements and Supplemental Schedules: Emerson Health System, Inc. and Affiliates: Dec. 20, 2011; PricewaterhouseCoopers LLC, Financial Statements and Supplemental Schedules: Cambridge Health Alliance: Nov. 20, 2012; PricewaterhouseCoopers LLC, Financial Statements and Supplemental Schedules: Cambridge Health Alliance: Nov. 14, 2011. The figures in this table reflect the performance of the entire corporate entity, not just its constituent hospital(s).

<b>Total Operating Revenue (\$000)</b>					
FY 2011	503,343	355,956	306,496	292,640	1,333,065
FY 2012	528,418	363,485	313,045	310,093	780,346
<b>Operating Margin</b>					
FY 2011	-3.9%	3.9%	2.7%	1.9%	3.8%
FY 2012	-2.7%	3.1%	2.4%	2.0%	-1.4%
<b>Total Net Assets (\$000)</b>					
FY 2011	2,097	219,316	152,672	173,063	264,526
FY 2012	-18,117	244,735	184,433	201,166	308,886
<b>Current Ratio</b>					
FY 2011	1.00	4.38	3.01	1.27	1.61
FY 2012	1.15	4.70	3.52	1.35	2.24
<b>Days Cash on Hand</b>					
FY 2011	33	125	230	145	88
FY 2012	52	146	259	170	121
<b>Cash and Equivalents, and Readily Available Investments (\$000)</b>					
FY 2011	44,734	111,699	176,196	109,483	302,663
FY 2012	74,256	134,299	203,391	134,722	253,402
<b>Average Age of Plant</b>					
FY 2011	N/A	13.8	13.5	14.3	11.9
FY 2012	N/A	14.7	14.5	12.6	11.8

Notes: Because Partners' financial statements do not disaggregate accumulated depreciation for each of its campuses, we are unable to calculate an age of plant figure specifically for NSMC.

## 2. Partners Has the Highest Share of Inpatient and PCP Services in Hallmark's and NSMC's Service Areas.

A provider's market share is its share of patient volume in a particular geographic area. Here, we examined the parties' market share for both inpatient services and PCP services in the relevant hospital and primary care PSAs.<sup>75</sup>

### a. *Hospital Market Share*

When we examined inpatient utilization in Hallmark's and NSMC's hospital PSAs, we found that Partners has, by a substantial margin, the highest commercial market share<sup>76</sup> in that region. In the table below, for systems with non-owned contracting affiliates (like Partners and

<sup>75</sup> The HPC applied its general method for defining a hospital PSA, which focuses on the contiguous zip codes closest to the hospital from which the hospital draws 75% of its commercial discharges. For more information on the HPC's PSA methodology, see PHS-SSH-HARBOR FINAL CMIR REPORT, *supra* note 28, at 37, n.115 and 38, n.118.

<sup>76</sup> Because hospitals primarily negotiate with commercial, not government, payers for prices, commercial market share is more relevant for assessing the competitive impact of a transaction. *See infra* Section IV.A.1.

its affiliate Hallmark and Beth Israel and its affiliate CHA), we report a range for the system’s market share to reflect that the system’s effective share likely falls between the ranges presented.<sup>77</sup> Partners, which contracts on behalf of two non-owned hospital systems, Hallmark and Emerson hospitals, currently captures between 32% and 48% of commercial discharges in Hallmark’s PSA and between 59% and 61% of commercial discharges in NSMC’s PSA.

#### Inpatient Market Shares in Hallmark’s PSA – 2012 Discharges

Hospital System	Excluding Non-Owned Contracting Affiliates		Including All Contracting Affiliates	
	Commercial Discharges	Market Share	Commercial Discharges	Market Share
<b>Partners</b>	<b>4,478</b>	<b>32%</b>	<b>6,608</b>	<b>48%<sup>78</sup></b>
Lahey	3,164	23%	3,164	23%
<b>Hallmark</b>	<b>2,103</b>	<b>15%</b>	-	-
Beth Israel	1,278	9%	1,786	13%
Tufts MC	736	5%	736	5%
Mt. Auburn	599	4%	599	4%
CHA	502	4%	-	-

#### Inpatient Market Shares in NSMC’s PSA – 2012 Discharges

Hospital System	Excluding Non-Owned Contracting Affiliates		Including All Contracting Affiliates	
	Commercial Discharges	Market Share	Commercial Discharges	Market Share
<b>Partners</b>	<b>5,040</b>	<b>59%</b>	<b>5,208</b>	<b>61%</b>
Lahey	2,470	29%	2,470	29%
Beth Israel	343	4%	383	4%
Boston Children’s Hosp.	218	3%	218	3%
<b>Hallmark</b>	<b>160</b>	<b>2%</b>	-	-

#### b. Physician Market Share

We also examined PCHI’s share of primary care physician (PCP) services in Hallmark’s service area. Using claims-level data from the All Payer Claims Database (APCD) for the

<sup>77</sup> Because Partners represents both its owned hospitals and its non-owned contracting affiliates when it negotiates with most commercial payers, Partners’ commercial market share should reflect some of the discharges from Hallmark and Emerson. However, because it does not own Hallmark or Emerson, Partners’ incentives to negotiate for these hospitals may be different than those for Partners’ owned hospitals. *See infra* note 170. Moreover, as described in note 37, *supra*, contracting affiliates like Hallmark may negotiate with some commercial payers directly (i.e., not through Partners). Thus, the market share that describes the competitive importance of Partners to payers likely does not reflect all discharges from these affiliated but non-owned hospitals.

<sup>78</sup> This number differs from the sum of the 32% and 15% market shares presented in the left-hand column of this table due to the inclusion of the 1% market share of Emerson Hospital, another non-owned contracting affiliate of Partners.

largest commercial payer in Massachusetts, we constructed a PSA for Hallmark's PCPs (hereinafter primary care PSA).<sup>79</sup> We found that PCHI physicians (including Hallmark) have an approximately 40% share of PCP services in this service area, as measured by revenue, and an approximately 35% share as measured by visits.<sup>80</sup> When a provider's share of revenue is above its share of visits in a given area, that provider's revenue per visit is above average relative to other providers in the same area.<sup>81</sup> Winchester Physician Associates,<sup>82</sup> New England Quality Care Alliance (NEQCA), and Atrius Health (Atrius) have the second, third, and fourth largest market shares in Hallmark's primary care PSA by both visits and revenue. However, their shares are tightly clustered and the ordering of their respective positions can shift with minor changes in methodology. These three groups each have between 7% and 13% of PCP visits and between 8% and 12% of PCP revenue in Hallmark's primary care PSA.

In addition to this strong market share in northeastern Massachusetts, as CHIA has previously reported, Partners is also the largest acute care hospital system and physician group statewide based on revenue reported from nine of the largest commercial payers in Massachusetts. In 2011, Partners received nearly one-third of statewide commercial payments to acute hospitals and approximately one-quarter of statewide payments to physician groups.<sup>83</sup>

### 3. Partners' Hospitals Receive Higher Prices Than Hallmark and Other Area Hospitals

The HPC examined hospital relative price<sup>84</sup> data for the parties from 2010 to 2012, and found consistent trends for all three major commercial payers. In each region in which Partners operates, its hospitals were consistently high priced.<sup>85</sup> Partners' owned hospital in northeastern

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<sup>79</sup> For the purposes of this report, we define a primary care PSA to be the area from which Hallmark PCPs collectively draw 75% of their primary care visits. Due to time and data constraints, our analysis is based on data for the largest commercial payer. As the APCD is expanded and refined, we look forward to further developing our APCD-based analyses.

<sup>80</sup> These are conservative figures because, in calculating PCHI's market share, we excluded certain PCHI specialists who may occasionally provide some primary care services, but were unable to exclude this type of specialist from other physician groups and independent PCPs. In order to ensure these findings are robust, we tested multiple market share sensitivities, including treating the Hallmark PCPs as separate Lawrence-Memorial and Melrose-Wakefield groups based on the location of each PCP, which all yielded results consistent with those reported here. Analyzed separately, Hallmark physicians have approximately 14% to 16% of primary care revenue and 13% to 15% of primary care visits in Hallmark's primary care PSA.

<sup>81</sup> Higher average revenue per visit reflects a combination of higher prices and/or higher patient acuity.

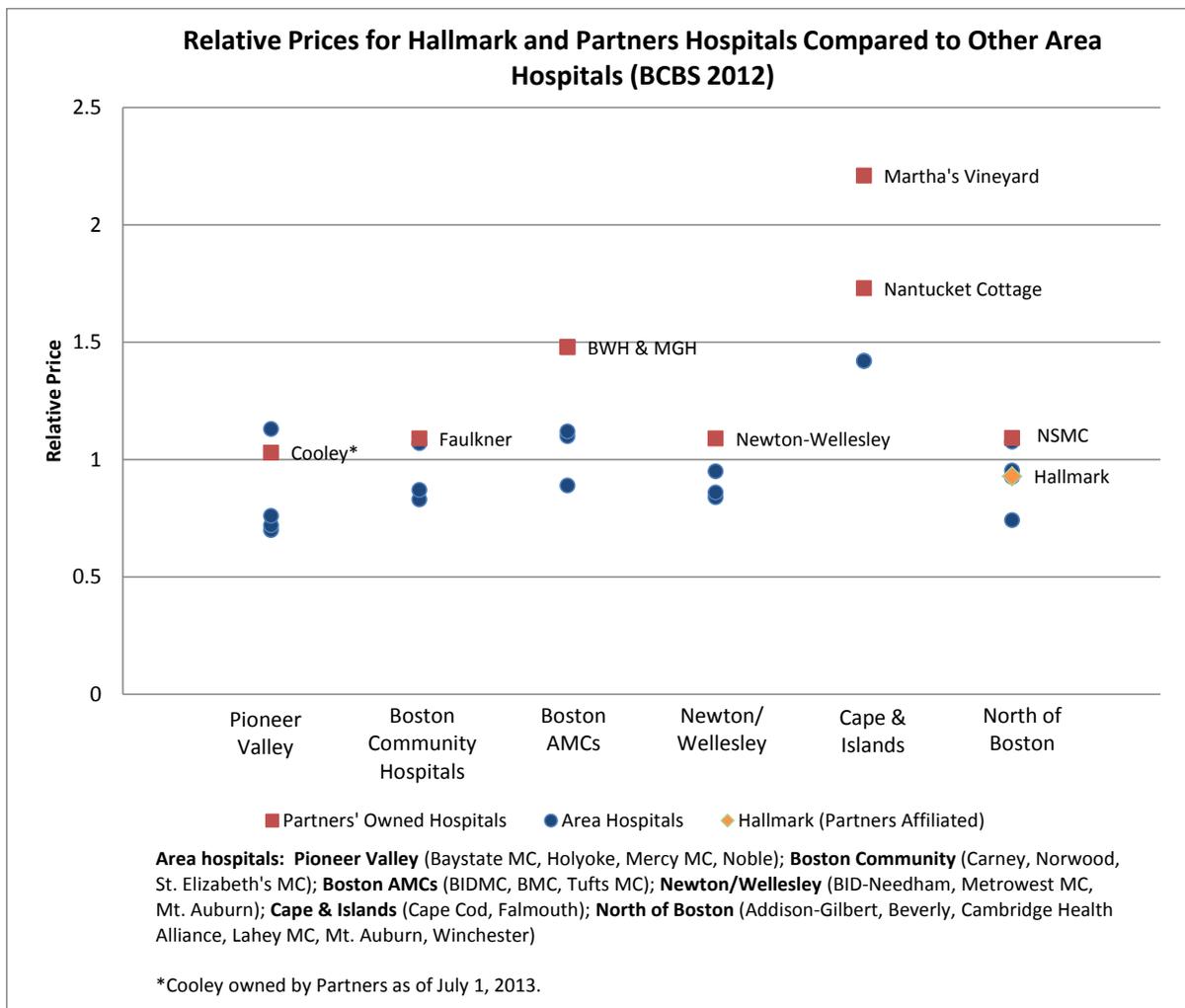
<sup>82</sup> Although we understand that Winchester Physician Associates (WPA) is being acquired by Lahey, it currently contracts through NEQCA, so for clarity we treat its market share here separately from either system.

<sup>83</sup> CHIA ANNUAL REPORT AUG. 2013, *supra* note 21, at 33-34 (finding that Partners received 31% of acute hospital payments in 2012 and 25% of physician payments in 2011 from these commercial payers).

<sup>84</sup> Relative price is a standardized pricing measure that accounts for differences among provider service volume, service mix, patient acuity, and insurance product types in order to allow comparison of negotiated price levels. *Id.* at 35.

<sup>85</sup> From 2010 to 2012, each Partners hospital received the highest price among area hospitals from BCBS and THP, except for Cooley Dickinson (acquired by Partners in July 2013; received the second highest price from BCBS), Faulkner (received a lower price from THP), and Newton-Wellesley (received the second highest price from THP in 2010, but the highest in 2011 and 2012). HPHC's prices for all of the Partners hospitals except Martha's Vineyard and Nantucket Cottage were consistently either the highest or second highest among area hospitals. CHIA ANNUAL REPORT AUG. 2013, *supra* note 21, at 10; CTR. FOR HEALTH INFO. & ANALYSIS, *2012 Relative Prices, APMs, and TME by Payer Databook*, <http://www.mass.gov/chia/docs/r/pubs/13/2013-annual-report-rp-apm-tme-data-book.xlsx>

Massachusetts, North Shore Medical Center (NSMC), generally received the highest prices in the region, while Hallmark’s prices were near the middle.<sup>86</sup> These data also show that Partners’ community hospitals in the greater Boston area receive comparable prices<sup>87</sup> and that Hallmark hospitals, while contracting through Partners, generally receive lower prices (for the three largest commercial payers, Partners’ community hospitals in the greater Boston area receive prices that are approximately 18%, 17%, and 6% higher than Hallmark’s prices, depending on the payer). The following chart is an example of this pattern, showing relative prices for inpatient and outpatient services for one major payer.<sup>88</sup>



Source: CHIA 2012 *Relative Prices, APM, and TME by Payer Databook*, *supra* note 85.

[hereinafter CHIA 2012 *Relative Prices, APMs, and TME by Payer Databook*]. See also PHS-SSH-HARBOR FINAL CMIR REPORT, *supra* note 28, at 15 (showing relative prices for the Partners hospitals compared to other area hospitals).

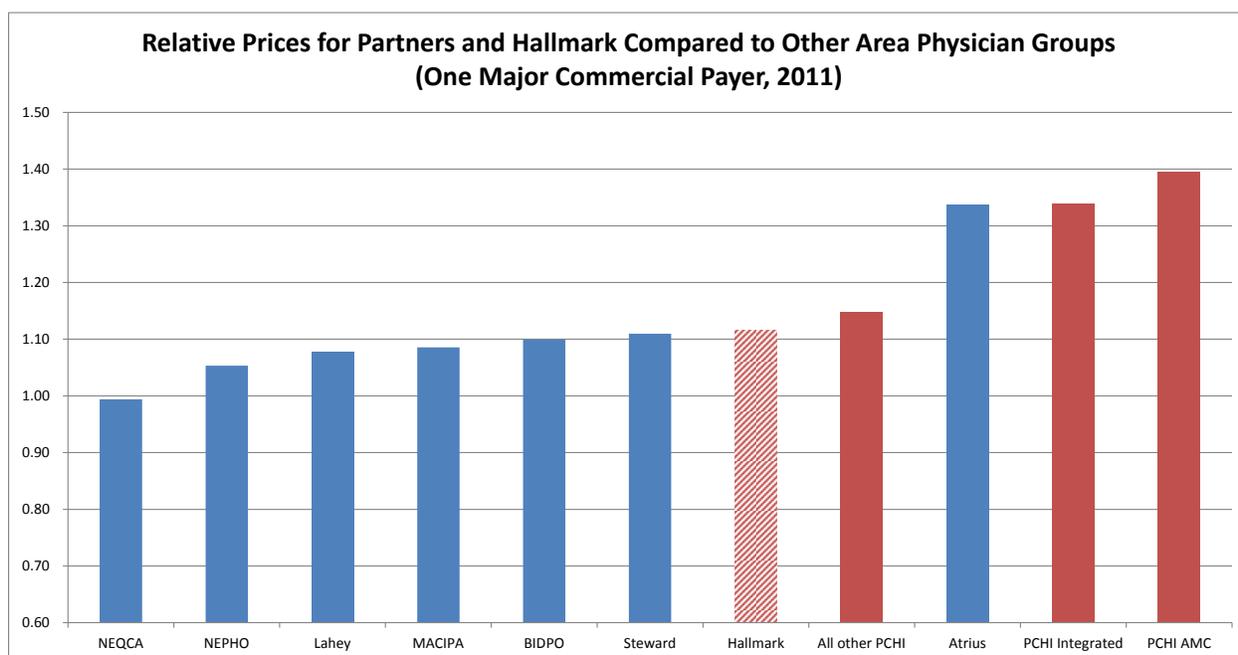
<sup>86</sup> CHIA 2012 *Relative Prices, APMs, and TME by Payer Databook*, *supra* note 85. From 2010-2012, NSMC received the second highest prices from HPHC and the highest prices from THP and BCBS among area hospitals, while Hallmark was in the lower to middle range among area hospitals.

<sup>87</sup> The three major commercial payers also confirmed that Partners seeks consistent pricing for these owned community hospitals in the greater Boston area: Faulkner, Newton-Wellesley, and NSMC.

<sup>88</sup> See *supra* note 86.

4. Partners’ Physician Groups (excluding Hallmark) Generally Receive Higher Prices than Hallmark Physicians and Other Area Physician Groups.

The HPC examined physician relative price data from 2009 to 2011 for the three major payers.<sup>89</sup> Over this period, Partners’ physician groups received higher prices than nearly all other physician groups in northeastern Massachusetts.<sup>90</sup> Although Hallmark physicians contract through PCHI for both PPO and HMO/POS rates, overall, Hallmark’s relative prices were also lower than those for Partners’ other physician groups. As shown below for one major commercial payer, when Partners’ rates are broken out by type of physician group, Partners’ physicians associated with AMCs received the highest rates, followed by employed community (or “integrated”) physicians.<sup>91</sup> All other Partners physicians (excluding Hallmark), in the aggregate, also received higher rates than Hallmark.<sup>92</sup> Section IV.A.1 will project how total medical spending will be impacted if Hallmark physicians contract at Partners’ generally higher rates upon contract renegotiation.



Source: CTR. FOR HEALTH INFO. & ANALYSIS, PHYSICIAN DATA, 2011 (HPC Analysis)

<sup>89</sup> 2012 physician relative price data will likely be available from CHIA in late 2014.

<sup>90</sup> For BCBS from 2009-2011, only Atrius and Mount Auburn Cambridge Independent Practice Association received higher relative prices than PCHI.

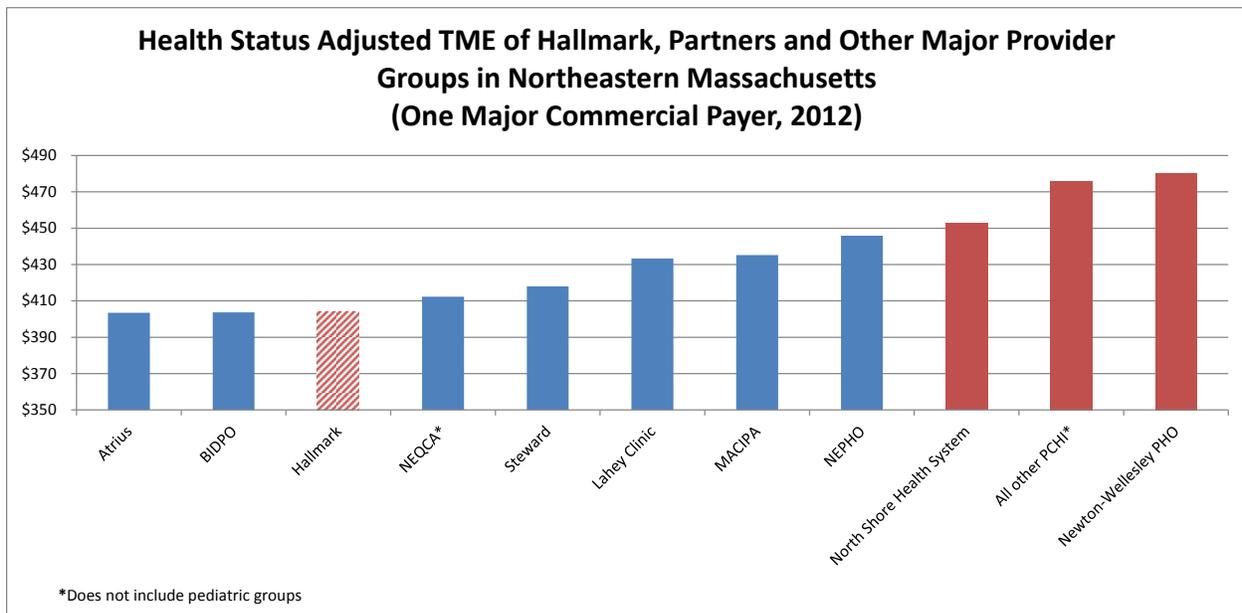
<sup>91</sup> PCHI’s physician rates vary among type of RSO. Rates for PCHI academic medical center physicians (shown as “PCHI AMC” in the chart) are generally the highest, followed by rates for employed community physicians (shown as “PCHI integrated” in the chart). Other PCHI physicians, such as Hallmark, generally get lower “affiliated” rates. See *supra* note 25 (describing PCHI); see *infra* Section IV.A.2. Specifically, for the three major commercial payers, PCHI’s AMC rates are up to 4.2% higher than integrated rates, and approximately 20-25% higher than Hallmark’s current affiliated rates.

<sup>92</sup> Due to data limitations, we were unable to disaggregate rates for PCHI affiliated groups for one major commercial payer.

5. Partners' Physician Groups (Excluding Hallmark) Generally Have Higher Health Status Adjusted TME than Hallmark and Other Area Physician Groups.

The HPC also reviewed the parties' TME to examine the total cost of all health care services for HMO/POS patients cared for by the parties.<sup>93</sup> The TME we present is adjusted according to the health status of the provider's patient population.<sup>94</sup>

The HPC reviewed the 2010 to 2012 health status adjusted TME for Hallmark, Partners' two RSOs that Hallmark would be most similar to post-transaction, and all other Partners physician groups. While Partners' other groups were consistently in the high range, as shown in red,<sup>95</sup> Hallmark's health status adjusted TME was generally in the low range among area providers. The following chart shows this TME pattern in 2012 for one of the major commercial payers.<sup>96</sup>



Source: CTR. FOR HEALTH INFO. & ANALYSIS, Physician Data on Total Medical Expenses, 2012 (HPC Analysis)

<sup>93</sup> TME is expressed as a per member per month dollar figure that reflects the average monthly covered medical expenses paid by the payer and the member for all of the health care services the member receives in a year. TME is currently publicly reported by provider system for patients who have explicitly selected a PCP with the provider system (patients in HMO and POS products, which require patients to select a PCP and obtain referrals to other providers through that PCP). TME reflects both utilization and price; high TME can reflect high utilization of services, and it can also reflect high prices of the hospitals or physicians that patients use.

<sup>94</sup> It is standard industry practice to adjust for health status differences when comparing TME, so a provider caring for a sicker population will not appear to have higher spending solely for that reason. Since each payer calculates health status scores for its network according to its own methodology, TME should not be compared across payers.

<sup>95</sup> As described in Section II, PCHI's 6,000 physicians are organized into regional service organizations (RSOs) of different types. North Shore Physician Group (NSPG) is the employed subgroup of North Shore Health System (NSHS). Newton-Wellesley Physician Hospital Organization (NWPHO) is a community hospital-affiliated Partners physician group. See *supra* notes 25-26 (describing the parties).

<sup>96</sup> Due to data limitations, we were unable to disaggregate PCHI rates in this manner for BCBS.

In sum, Partners' financial condition is strong and Hallmark's is positive. Partners has the highest share of both inpatient and primary care services in Hallmark and NSMC's service areas. In general, Partners hospitals receive higher prices than Hallmark and other area hospitals, and its physician groups receive higher prices than Hallmark and other area groups. This is the case even though Hallmark currently contracts through Partners with most major payers for both HMO/POS and PPO rates. Similarly, Partners' physician groups have higher health status adjusted TME than Hallmark physicians and most other area providers, in part due to higher prices. It is important to keep in mind the parties' financial strength and cost performance to date in assessing the likely cost impact of the proposed transaction, as outlined in Section IV.A.1.

## B. QUALITY PROFILE

The HPC examined the parties' quality performance<sup>97</sup> in recent years to establish a baseline from which to assess whether differences in the parties' performance could be expected to drive beneficial clinical impacts following the transaction.<sup>98</sup> We focused on four core dimensions of quality: health care system structures, clinical processes, clinical outcomes, and patient experience of care. We discuss each of these below.

After examining over 115 nationally recognized measures<sup>99</sup> across these dimensions, we found:

- Hallmark's hospitals<sup>100</sup> have slightly above-average inpatient quality when compared to state and national averages, but slightly lower performance than other area community hospitals.<sup>101</sup> Partners' hospitals generally have high quality performance compared to state and national averages.
- Hallmark's physician groups generally perform at or slightly below the state average among Massachusetts medical groups. PCHI (excluding Hallmark) consistently outperforms the state average.

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<sup>97</sup> Our analysis is based on the best available, nationally accepted measures of quality and care delivery performance. As additional measures of quality performance are developed, we look forward to incorporating them into our future work.

<sup>98</sup> An important factor that may increase the likelihood of a beneficial quality impact from a transaction is substantial pre-merger clinical superiority of the acquiring party, though differences in quality by themselves do not guarantee a transaction will result in quality improvements. See Patrick Romano & David Balan, *A Retrospective Analysis of the Clinical Quality Effects of the Acquisition of Highland Park Hospital by Evanston Northwestern Healthcare*, 18 INTL. J. ECON. BUS. 45 (2011) ("[P]re-merger quality differences suggest one hospital has something of value to impart to the other.").

<sup>99</sup> We assessed a broad spectrum of measures capturing different segments of care. Where possible, measures were drawn from the Massachusetts Standard Quality Measure Set. See CTR. FOR HEALTH INFO & ANALYSIS, MASS. STANDARD QUALITY MEASURE SET (2014), available at <http://www.mass.gov/chia/docs/g/sqac/2013/2013-final-report-appendix-b-standard-quality-measure-set.pdf>.

<sup>100</sup> In most cases, sources of inpatient quality data aggregated Hallmark-MWH and Hallmark-LMH.

<sup>101</sup> As noted in Section I.B, area community hospitals used as comparators for Hallmark include NSMC (Salem and Union), Winchester, Mount Auburn, and CHA.

a. *Measures of Health System Structures*

Our examination of a series of structural factors related to quality and patient safety (including, e.g., staff policies, accreditation, certification, and staff influenza vaccination) indicates that the parties generally perform well.<sup>102</sup> Hallmark-MWH met the 2013 state average rate of influenza vaccination for health care personnel<sup>103</sup> of 86%, and Hallmark-LMH achieved a vaccination rate of 90%; Partners' hospitals generally had lower rates of vaccination.<sup>104</sup> Partners has well-developed internal systems for tracking and benchmarking quality and incentivizing clinical improvement at its hospitals and individual PCHI physician groups, including Hallmark Health PHO (HHPHO), while Hallmark also has some internal quality tracking systems.<sup>105</sup>

b. *Clinical Process Measures*

Clinical processes are the elements of workflow in a clinical environment, such as adherence to guidelines or the timely provision of certain accepted services. We examined the following clinical process measures:

- *Hospital Process Composites for Acute Myocardial Infarction (AMI), Pneumonia, and Heart Failure, and Surgical Care Improvement Project (SCIP) Measures.*<sup>106</sup> Hallmark<sup>107</sup> and NSMC perform lower than state and national averages on these measures, while BWH and other area providers—Lahey HMC, Beverly, and Mount Auburn—perform higher than the averages. These are, however, small differences among high-performing

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<sup>102</sup> The Leapfrog Group® conducts an annual assessment of hospital patient safety performance across the nation. Based upon a series of factors, including utilization of computerized physician order entry (CPOE), ICU physician staffing ratios, core safety practices, five surgical care improvement project measures, data on seven hospital acquired conditions, and six patient safety indicators, the Leapfrog Group assigns a Hospital Safety Score<sup>SM</sup> to each hospital. The Hallmark hospitals, BWH, Faulkner, and NSMC's-Union campus all received a score of "A," while MGH and NSMC-Salem each received a "B." The Hospital Safety Score<sup>SM</sup> grades hospitals on data related to how safe they are for patients. *About the Score - Hospital Safety Score*, THE LEAPFROG GROUP, <http://www.hospitalsafetyscore.org/about-the-score> (last visited June 27, 2014).

<sup>103</sup> These data are from the Massachusetts Department of Public Health (DPH) for 2012-2013; DPH's target rate of vaccination for 2013 was 90%. See MASS. DEP'T OF PUBLIC HEALTH, 2012 HEALTHCARE ASSOCIATED INFECTION ANNUAL REPORT (2013), available at <http://www.mass.gov/eohhs/docs/dph/quality/healthcare/hai/employee-flu-vac/acute-care-hospital-2012-2013.pdf>.

<sup>104</sup> Vaccination rates at Partners hospitals were: 73% at BWH, 78% at NSMC-Salem, 79% at NSMC-Union, 82% at Cooley Dickinson, 84% at MGH, 87% at Newton-Wellesley, 89% at Faulkner. *Id.*

<sup>105</sup> The development and implementation of systems to track and improve quality can play a part in improving clinical performance. See Loes M. Schouten et al, *Evidence for the Impact of Quality Improvement Collaboratives: Systematic Review*, 336 BMJ 1491 (2008), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2440907/pdf/bmj-336-7659-res-01491-el.pdf>.

<sup>106</sup> The HPC used CMS Hospital Compare data to create a singular weighted composite process measure of the parties' performance for each year 2011 through Q1 2013. The weighted process measure was composed of hospital process composites for AMI, pneumonia, heart failure and SCIP measures. See *Measures Displayed on Hospital Compare*, CTR. FOR MEDICARE & MEDICAID SERVS., <http://www.medicare.gov/hospitalcompare/Data/Measures-Displayed.html> (last visited Mar. 26, 2014) (process measures for AMI, heart failure, pneumonia, and SCIP listed under the heading of "Timely and Effective Care").

<sup>107</sup> We refer to Hallmark as a system when discussing certain inpatient measures because CMS Hospital Compare aggregates data for Hallmark-LMH and Hallmark-MWH.

institutions.<sup>108</sup> All of the hospitals examined demonstrate consistent improvement over the time period examined.

- *Behavioral Health Inpatient Process Measures.*<sup>109</sup> The HPC examined four measures of the quality of inpatient care for patients admitted for behavioral health treatment. On measures assessing the frequency of use of restraints or seclusion, the parties' hospitals perform well relative to state and national averages. On measures of the use of post-discharge care plans, MGH and McLean performed extremely well compared to state and national benchmarks, while Hallmark's performance was substantially lower.
- *Hospital Outpatient Imaging Measures.*<sup>110</sup> The HPC examined five measures of the frequency of use of certain imaging procedures for hospital outpatients. While the use of these procedures is necessary in some cases, particularly high rates of use may indicate inappropriate or inefficient use.<sup>111</sup> On a composite of these measures, Hallmark's rate of use was over 80% higher than the state average; Partners AMCs' use was less than half of the average, and NSMC's rate of use was also below average.
- *Ambulatory Care (HEDIS) Process Measures.*<sup>112</sup> The HPC analyzed 25 measures that show how primary care providers perform on preventative care services, including hypertension, cancer screening, heart failure, and diabetes. HHPHO<sup>113</sup> performed slightly below the state average in both years analyzed, while the weighted average performance of PCHI's physician groups (not including Hallmark) slightly exceeded the

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<sup>108</sup> In 2013, Hallmark achieved a 97.3% score in the CMS Hospital Compare Hospital Process Composite and NSMC scored a 97.8%, compared to the Massachusetts average score of 98.3% and national average score of 97.9%.

<sup>109</sup> The HPC examined four CMS measures of care for patients identified as psychiatric discharges: hours of physical restraint use (HBIPS-2), hours of seclusion (HBIPS-3), frequency of creation of a post-discharge continuing care plan (HBIPS-6), and frequency of transmission of a post-discharge continuing care plan to the next level of care provider upon discharge (HBIPS-7). These measures were recently published, and data are available only for the period from Oct. 2012 through Mar. 2013. See *Specifications Manual for Joint Commission National Quality Measures (v2013A1)*, THE JOINT COMM'N, <https://manual.jointcommission.org/releases/TJC2013A/HospitalBasedInpatientPsychiatricServices.html> (last visited May 9, 2014).

<sup>110</sup> The HPC examined CMS Hospital Compare measures of the use of medical imaging for Q1 2010 through Q4 2011. These measures were not case-mix adjusted. *Outpatient Imaging Efficiency Data*, CTR. FOR MEDICARE & MEDICAID SERVS., <http://www.medicare.gov/hospitalcompare/Data/Outpatient-Measures.html> (last visited June 29, 2014).

<sup>111</sup> *Id.*

<sup>112</sup> The HPC obtained data for years 2009 and 2010 from Massachusetts Health Quality Partners (MHQP) and used measures derived from the Healthcare Effectiveness Data Information Set (HEDIS) to measure the quality of clinical processes in the outpatient setting. The composite presented includes metrics for adult diagnostic and preventive care, depression, medication management, asthma care, heart disease and chronic disease management, diabetes care, well-child visits, pediatric medications and testing, and women's health. *HEDIS® and Quality Compass®*, NAT'L COMM. FOR QUALITY ASSURANCE, <http://www.ncqa.org/HEDISQualityMeasurement/WhatisHEDIS.aspx> (last visited Mar. 26, 2014).

<sup>113</sup> Because the physician data used predates the formation of HHPHO, the data presented here represents the average performance of the two physician groups which later became HHPHO, Melrose-Wakefield/Metro North Healthcare Alliance and The Lawrence Organization, weighted by number of patients.

state average in both years; the variation between the parties was four percentage points.<sup>114</sup>

Overall, on these nationally accepted process measures, for both inpatient and outpatient quality Hallmark performs below the state and national averages, while most Partners hospitals and PCHI perform better compared to these averages.

### c. *Clinical Outcome Measures*

We also examined clinical outcomes, or the results of a given course of care, in the hospital setting. On measures of mortality, inpatient performance at Hallmark and all Partners hospitals was better than state and national averages.<sup>115</sup> On a composite measure of readmissions, Hallmark performs slightly better than the state average, but not as well as the national average. NSMC outperforms state and national averages, while MGH and BWH perform below both benchmarks.<sup>116</sup> The performance of the parties' hospitals on Massachusetts Data Analysis Center (Mass-DAC) measures of mortality after percutaneous coronary interventions were not statistically significantly different from the state average.<sup>117</sup> On a composite of AHRQ Patient Safety Indicators, which measures the frequency of preventable harm in the hospital setting,<sup>118</sup> NSMC-Salem outperformed Hallmark-MWH, while both hospitals performed better than the state average; Hallmark-LMH, NSMC-Union, MGH, and

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<sup>114</sup> HHPHO performed roughly 2% below the state average in both 2009 and 2010, while PCHI performed approximately 2% higher than the state average in the same time period.

<sup>115</sup> These findings are based on a composite of CMS Hospital Compare mortality rates among heart attack, heart failure, and pneumonia patients from Q3 2009 through Q2 2012. Although lower scores on these outcome measures indicate better performance, we use the term "below average" to mean lower performance. Performance on outcome measures is adjusted for differences in patient acuity. Compared to national averages, NSMC's performance was statistically significantly better for heart failure and pneumonia mortality in 2012, while the performance of the other Partners hospitals and Hallmark was not statistically higher or lower than the national averages. See *Outcome Measures*, CTR. FOR MEDICARE & MEDICAID SERVS., <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/OutcomeMeasures.html>.

<sup>116</sup> This statistic is based on a composite of CMS Hospital Compare readmission rates within 30 days among heart attack, heart failure, and pneumonia patients from Q3 2009 through Q2 2012. NSMC was statistically better than the national average on heart failure readmissions in 2012. All other hospitals were not statistically different from the national average in 2012 for each of the three readmission rates.

<sup>117</sup> Although Mass-DAC also measures mortality after coronary artery bypass graft (CABG) surgery, Hallmark-MWH performed no CABG procedures during the time period examined; therefore, we evaluated only measures for elective and emergency percutaneous coronary interventions. Hallmark-LMH does not perform any of the complex cardiac procedures monitored by Mass-DAC. See *Reports*, MASS. DATA ANALYSIS CTR., <http://www.massdac.org/index.php/reports/> (last visited Apr. 16, 2014).

<sup>118</sup> The HPC computed Patient Safety Indicators (PSI) and Inpatient Quality Indicators (IQI) from Massachusetts Health Data Consortium (MHDC) hospital discharge data for 2010 through 2012 using code available from AHRQ. See *Patient Safety Indicators Overview*, AGENCY FOR HEALTHCARE RESEARCH & QUALITY, [http://www.qualityindicators.ahrq.gov/modules/psi\\_resources.aspx](http://www.qualityindicators.ahrq.gov/modules/psi_resources.aspx) (last visited Apr. 16, 2014) (discussing the use of PSIs to measure the frequency of a variety of adverse outcomes and preventable harm); AGENCY FOR HEALTH CARE RESEARCH & QUALITY, PATIENT SAFETY FOR SELECTED INDICATORS, TECHNICAL SPECIFICATIONS, PATIENT SAFETY INDICATORS #90 (2013), available at <http://www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/V45/TechSpecs/PSI%2090%20Patient%20Safety%20for%20Selected%20Indicators.pdf> (showing the measures that are part of the PSI #90 health status adjusted composite).

BWH all performed below the state average in 2012. On another composite measure of the frequency of hospital acquired conditions, Hallmark performed in line with the state average, while NSMC and the Partners AMCs performed below average over a one-year period.<sup>119</sup> There was no statistical difference between the rate of health care associated infections at the parties' hospitals and the national average, except that MGH experienced a lower incidence of central line associated blood stream infections (CLABSI) related to surgeries in 2012, NSMC-Salem experienced a higher incidence of CLABSI in 2012, and Hallmark-MWH experienced a higher incidence of surgical site infections associated with hysterectomies in 2010 and 2012.<sup>120</sup>

*d. Patient Experience of Care Measures*

We assessed the parties' performance on ten hospital experience measures<sup>121</sup> and six ambulatory adult and five pediatric patient experience measures.<sup>122</sup> On a composite measure of hospital patient experience, Hallmark's hospitals, MGH, and BWH performed better than both state and national averages, while NSMC performed below the state and national averages.

On the adult ambulatory care experience composite, PCHI on average (not including Hallmark) performed approximately 1% better than the state average for both 2009 and 2011, while HHPHO performed equal to the state average in 2009, but fell 2% below the state average in 2011. On the pediatric ambulatory care experience composite, both HHPHO and PCHI trended upward from 2009 to 2011, with HHPHO meeting and PCHI exceeding the state average in 2011.<sup>123</sup>

In summary, Hallmark hospitals performed equal to or above the state average on 55% of the inpatient quality measures we examined, while HHPHO performed equal to or above average

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<sup>119</sup> This statistic is based on a composite of CMS Hospital Compare measures of the frequency of hospital acquired conditions occurring in Q4 2010 through Q4 2011 (the most recently available data). *Conditions - Hospital Acquired Conditions (HACs)*, QUALITYNET, <http://qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228759483171> (last visited June 29, 2014).

<sup>120</sup> These statistics are based on DPH data on health care associated infections for 2010 through 2012. See MASS. DEPT. OF PUBLIC HEALTH, MASS. 2012 HAI DATA UPDATE (2013), available at <http://www.mass.gov/eohhs/docs/dph/quality/healthcare/hai/hai-hospital-data-2012.xls>.

<sup>121</sup> We obtained Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) data from CMS for years 2011 through Q1 2013 and analyzed to produce our findings, focusing on HCAHPS "top-box" scores. See *Survey of Patients' Experiences*, CTR. FOR MEDICARE & MEDICAID SERVS., <http://www.medicare.gov/hospitalcompare/About/Survey-Patients-Experience.html> (last visited Mar. 26, 2014) (explaining HCAHPS survey criteria); *Summary Analyses*, CTR. FOR MEDICARE & MEDICAID SERVS., <http://www.hcahpsonline.org/SummaryAnalyses.aspx> (last visited Mar. 18, 2014) (explaining HCAHPS "top box" methodology).

<sup>122</sup> We obtained Adult and Pediatric Ambulatory Care Patient Experience Surveys for 2009 and 2011 from the MHQP and analyzed to produce our findings. See *Quality Insights: 2011 Patient Experiences in Primary Care, Technical Appendix*, MASS. HEALTH QUALITY PARTNERS, <http://www.mhqp.org/quality/pes/pesTechApp.asp?nav=031638> (last visited Mar. 26, 2014) (explaining the Adult and Pediatric Ambulatory Care Patient Experience Survey).

<sup>123</sup> Hallmark improved two percentage points from 2009 to 2011 and was equal to the state average in 2011.

on 38% of ambulatory measures examined.<sup>124</sup> All of Partners' hospitals and physician groups met or exceeded average performance on more measures than Hallmark; NSMC met or exceeded the average on 66% of inpatient measures and NSHS met or exceeded the average on 78% of ambulatory measures, while MGH met or exceeded the average on 59% of inpatient measures and MGPO met or exceeded the average on 69% of ambulatory measures.

### C. ACCESS PROFILE

Pursuant to MASS. GEN. LAWS ch. 6D, § 13, the HPC monitors factors relating to health care access in its review of provider material changes (e.g., “availability and accessibility of services,” “the role of the provider in serving at-risk, underserved, and government payer patient populations, including those with behavioral, substance use disorder and mental health conditions,” “[the provision of] low margin or negative margin services,” and “consumer concerns”).<sup>125</sup> The HPC recognizes that “access” is a broad term encompassing a spectrum of interrelated factors that measure and monitor how patients access and engage with the health care system.<sup>126,127</sup> Given that the proposed transaction contemplates significant changes in service offerings and service locations, including a net consolidation of inpatient beds and expansion of certain outpatient services like cardiology, oncology, and orthopedics, it is important to understand the baseline profile of the parties' current service offerings and the patients they serve. We evaluated the following measures of access in our review of this transaction:

1. **Service capacity, utilization, and community need:** Where possible, we examined the scope of provider service offerings and the volume of services delivered in different service lines, including lower margin service lines. To explore service need, we examined emergency department (ED) wait times and community health assessments.<sup>128</sup>

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<sup>124</sup> The percentages in this summary assess performance on individual measures, including those which comprise the composites discussed in the preceding subsections. Those measures for which no data was available for a particular hospital or local practice group were excluded from that entity's total count. Performance within 0.1% of average was considered average for the purpose of these summary counts. On inpatient measures for which disaggregated data were available for the Hallmark hospitals and NSMC, data for Hallmark-MWH and NSMC-Salem were used, respectively.

<sup>125</sup> MASS. GEN. LAWS ch. 6D, § 13(d)(vi, ix-xii) (2012).

<sup>126</sup> For example, in evaluating the accessibility of services, health care experts examine factors as varied as: (1) financial barriers, which may restrict access either because patients have limited ability to pay for services or because providers avoid treating patients of limited means; (2) structural barriers, which may impede access through a poor match between the needs of the population and the number, type, location, hours of operation, or organizational configuration of health care providers; and (3) personal and cultural barriers, which may inhibit people who need medical attention from seeking it or adhering to plans of care, and which can impact effective communication with providers. *See, e.g.*, INSTITUTE OF MEDICINE, ACCESS TO HEALTH CARE IN AMERICA 39-44 (Michael Millman ed., 1993); J. Emilio Carillo et al., *Defining and Targeting Health Care Access Barriers*, 22 J. OF HEALTH CARE FOR THE POOR AND UNDERSERVED 562, 564-68 (2011).

<sup>127</sup> *See* LAHEY-WINCHESTER FINAL CMIR REPORT, *supra* note 68, at 25 (various agencies in Massachusetts are responsible for monitoring access, including CHIA, DOI, and the AGO, for example).

<sup>128</sup> There is currently limited data on behavioral health services rendered at specialty psychiatric hospitals and in outpatient sites of care. For example, specialty psychiatric hospitals are not included in CHIA's Hospital Discharge Database. As a result, many of our analyses focus on behavioral health discharges at general acute care hospitals. Given the importance of specialty hospitals in providing behavioral health and other services, the HPC strongly

2. **Payer mix:** We examined the proportion of care delivered to patients covered by different forms of insurance, including government payer patients.<sup>129</sup>

From these, we found:

- The parties are important providers of inpatient services to their local communities, including behavioral health services.
- While northeastern Massachusetts appears to have some excess inpatient bed capacity, evidence indicates there is likely a need for additional behavioral health capacity. There are inadequate data to allow us to evaluate need for other outpatient services proposed in this transaction.
- In contrast to other Partners hospitals, NSMC has a higher government payer mix and lower commercial mix compared to area hospitals. Hallmark also has a higher mix of government payers, including the highest Medicare mix among area community hospitals, with Hallmark-LMH having a particularly high Medicare mix among behavioral health discharges.

1. Hallmark and NSMC are Important Providers of Inpatient Services, Including Behavioral Health Services, to Their Local Communities.

To understand the scope of services provided by the parties, the HPC examined inpatient services provided by Hallmark, NSMC, and other area community hospitals; the mix of beds<sup>130</sup> at these hospitals; and the geographic areas from which Hallmark and NSMC draw their patients.<sup>131</sup> We found that the Hallmark and NSMC hospitals provide a range of medical, surgical, and behavioral health services, with services for deliveries and newborns offered at NSMC-Salem and Hallmark-MWH.<sup>132</sup> The parties are significant providers of inpatient behavioral health services, with behavioral health diagnoses representing between seven and

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encourages collection of discharge data from these hospitals. Efforts to ensure high quality behavioral health data are included for all government payers and major commercial payers in the All Payer Claims Database will further support meaningful ambulatory care analyses.

<sup>129</sup> Differences in payer mix can have significant financial implications for how our health care system sustainably apportions care for the neediest populations. Given presumed lower payments by government payers, there are financial implications for providers who care for a greater proportion of government payer patients, and those who do not. See INSTITUTE OF MEDICINE, *supra* note 126, at 40. “[M]ost structural barriers to access have their roots in the way health care is financed. Despite a greatly enlarged physician force and the existence of some 600 community health centers, many of today’s poor still find it difficult to identify physicians who will accept Medicaid. A major reason for this dilemma is Medicaid’s low reimbursement rates.” *Id.*

<sup>130</sup> In general, we use the word “bed” in this report to refer exclusively to inpatient beds.

<sup>131</sup> The hospital’s mix of outpatient services may be different than the mix of inpatient services described in this section.

<sup>132</sup> Specifically, using the MHDC hospital discharge database, we found that in 2012, Hallmark-LMH’s discharges were 75% medical, 13% surgical, 11% behavioral health, and 0% deliveries; Hallmark-MWH’s discharges were 60% medical, 15% surgical, 10% behavioral health, and 14% deliveries; NSMC-Salem’s discharges were 56% medical, 22% surgical, 7% behavioral health, and 15% deliveries; and NSMC-Union’s discharges were 66% medical, 16% surgical, 17% behavioral health, and 0% deliveries. These categories are based on the Health Care Cost Institute’s methodology. HEALTH CARE COST INST., HEALTH CARE COST AND UTILIZATION REPORT: 2011, ANALYTIC METHODOLOGY (Sept. 2012), available at [http://www.healthcostinstitute.org/files/HCCI\\_HCCUR2011\\_Methodology.pdf](http://www.healthcostinstitute.org/files/HCCI_HCCUR2011_Methodology.pdf).

seventeen percent of discharges at the Hallmark and NSMC hospitals in 2012. When we examined the mix of beds at area hospitals, we found that the parties represent approximately 36% of all inpatient behavioral health capacity in the region (NSMC and Hallmark provide 116 of 249 staffed behavioral health beds among area general acute care hospitals and McLean provides 177 of 570 staffed behavioral health beds among area specialty psychiatric hospitals).<sup>133,134</sup> The table below shows the mix of bed capacity across the region.

#### Staffed Beds at Area General Acute Care Hospitals and Specialty Psychiatric Hospitals

	Med/Surg.	ICU <sup>135</sup>	Ped.	Newborn <sup>136</sup>	Psych.	Total <sup>137</sup>
<b>Area General Acute Care Hospitals<sup>138</sup></b>						
Cambridge Health Alliance	106	12	0	14	88	<b>234</b>
<b>Hallmark-LMH and Hallmark-MWH</b>	129	15	0	10	52	<b>216</b>
Lahey HMC	287	54	0	0	0	<b>341</b>
Mount Auburn Hospital	141	20	0	29	15	<b>228</b>
Northeast Health System (Addison Gilbert and Beverly Hospitals)	219	34	0	28	30	<b>342</b>
<b>NSMC-Salem and NSMC-Union</b>	247	40	24	37	64	<b>436</b>
Winchester Hospital	147	10	12	40	0	<b>229</b>
<b>Area Specialty Psychiatric Hospitals<sup>139</sup></b>						
Arbour Hospital	-	-	-	-	130	<b>130</b>
Arbour-HRI Hospital	-	-	-	-	66	<b>66</b>

<sup>133</sup> Of the parties' licensed, as opposed to staffed, psychiatric beds, NSMC-Salem has 26 adult beds, NSMC-Union has 20 geriatric and 18 child/adolescent beds, Hallmark-LMH has 18 geriatric beds, and Hallmark-MWH has 22 adult beds. Mass. Dep't of Mental Health, Staffed and Licensed Beds (2014). Hallmark-LMH has an additional 16 beds that the parties and the Department of Public Health list as psychiatric beds, which appear not to be secure psychiatric beds licensed by the Department of Mental Health.

<sup>134</sup> Throughout this report, references to "specialty psychiatric hospitals" refer to private specialty psychiatric hospitals rather than facilities operated by the Commonwealth. We do not include, for example, Department of Mental Health or Bureau of Substance Abuse Services facilities in these analyses due to differences in both the services provided and the populations served.

<sup>135</sup> Reflects total medical/surgical, coronary, and neonatal staffed ICU bed counts. CTR. FOR HEALTH INFO. & ANALYSIS, *Massachusetts Hospital Profiles, March, 2014: Acute Hospital Data Appendix* (FY2012 Staffed Beds) (last visited June 27, 2014), <http://www.mass.gov/chia/researcher/hcf-data-resources/massachusetts-hospital-profiles/overview-and-current-reports.html> (scroll to bottom of page and click "Acute Hospital" Excel document under "Databooks") [hereinafter CHIA 2012 Acute Hospital Profiles Databook].

<sup>136</sup> Reflects total newborn nursery and special care nursery staffed beds. *Id.*

<sup>137</sup> This column includes certain bed types not listed separately in the table (e.g. obstetrics).

<sup>138</sup> CHIA 2012 Acute Hospital Profiles Databook, *supra* note 135.

<sup>139</sup> CTR. FOR HEALTH INFO. & ANALYSIS, *Massachusetts Hospital Profiles, March, 2014: Non-Acute Hospital Data Appendix* (FY2012 Staffed Beds) (last visited June 27, 2014), <http://www.mass.gov/chia/researcher/hcf-data-resources/massachusetts-hospital-profiles/overview-and-current-reports.html> (scroll to bottom of page and click "Non-Acute Hospital" Excel document under "Databooks"). Area psychiatric hospitals were selected by focusing on facilities within a 10-mile radius of the party community hospitals.

Bayridge Hospital (Lahey)					62	<b>62</b>
BourneWood Hospital	-	-	-	-	90	<b>90</b>
<b>McLean Hospital</b>	-	-	-	-	177	<b>177</b>
Walden Behavioral Care <sup>140</sup>	-	-	-	-	45	<b>45</b>

Source: 2012 Hospital 403 Reports (CHIA) and Hospital Profile Reports (CHIA)

To understand the behavioral health populations served by the NSMC and Hallmark hospitals, we constructed separate service areas for mental health and substance abuse discharges at each hospital.<sup>141</sup> This analysis shows that a significant proportion of Hallmark and NSMC’s behavioral health discharges come from a relatively compact area around each hospital campus. Among general acute care hospitals, each hospital usually provides one of the three largest shares of mental health and/or substance abuse discharges in its service areas. This analysis indicates that notwithstanding the presence of other area behavioral health providers, the NSMC and Hallmark hospitals are important providers of behavioral health services to their local communities.

2. While Northeastern Massachusetts Appears to Have Some Excess Inpatient Bed Capacity, Evidence Indicates There Is Likely a Need for Additional Behavioral Health Capacity. There are Inadequate Data to Allow Us to Evaluate Need for Other Outpatient Services Proposed in this Transaction.

To determine the extent to which existing capacity meets community need, we examined inpatient occupancy rates of hospitals in the region and evidence of outpatient need. As shown below, we found that general acute care hospitals in northeastern Massachusetts appear to have overall capacity that likely exceeds community need. However, behavioral health occupancy rates are significantly higher than the average occupancy rate across all inpatient beds, indicating that additional behavioral health capacity is likely needed. Notably, the highest occupancy rate overall and for behavioral health services was the combined rate at the Hallmark hospitals (87% overall and 98.25% for behavioral health).

<sup>140</sup> We understand that Walden Behavioral Health focuses on a subset of the services provided by the other psychiatric hospitals listed (primarily treatment for eating disorders and related disorders).

<sup>141</sup> We defined these service areas by examining the zip code of origin for discharges constituting 75% of commercial and non-commercial substance abuse and mental illness discharges at the focal hospital.

**Staffed Bed Occupancy Rates at Area General Acute Care Hospitals and Specialty Psychiatric Hospitals<sup>142</sup>**

Hospital	Occupancy Rate Across All Inpatient Beds	Occupancy Rate for Behavioral Health Beds
<b>Area General Acute Care Hospitals</b>		
Cambridge Health Alliance	72%	81.94%
<b>Hallmark-LMH and Hallmark-MWH</b>	87%	98.25%
Lahey HMC	81%	N/A; 0 beds
Mount Auburn Hospital	66%	89.4%
Northeast Health System (Addison Gilbert, Beverly and Bayridge Hospitals)	63%	93.32%
<b>NSMC-Salem and NSMC-Union</b>	59%	83.53%
Winchester Hospital	63%	N/A; 0 beds
<b>Area Specialty Psychiatric Hospitals</b>		
Arbour Hospital	-	85.58%
Arbour-HRI Hospital	-	95.94%
Bournewood Hospital	-	84.77%
<b>McLean Hospital</b>	-	89.51%
Walden Behavioral Care <sup>143</sup>	-	93.36%

Source: 2012 and 2011 Hospital 403 Reports (CHIA) and Hospital Profile Reports (CHIA)

Notes: Occupancy rates are estimates and may vary due to admission of select medically-complex behavioral health patients to medical-surgical units

To further examine area service capacity and need, the HPC studied boarding of patients in emergency departments (EDs) in the region.<sup>144</sup> Specifically, the HPC examined the number of patients who visited regional emergency departments with a behavioral health need and had to

<sup>142</sup> To further understand statewide health resource allocation, Chapter 224 tasks the Executive Office of Health and Human Services with convening a Health Resource Planning Council to examine capacity, need, and demand for health care services. The HPC is a statutory member of the Council which, among its first tasks, has examined allocation of and need for behavioral health resources in the Commonwealth. MASS. GEN. LAWS ch. 6A, § 16T (2012).

<sup>143</sup> We understand that Walden Behavioral Health focuses on a subset of the services provided by the other psychiatric hospitals listed (primarily treatment for eating disorders and related disorders).

<sup>144</sup> There are few publicly available indicia of barriers to behavioral health access. Emergency department boarding is a widely reported phenomenon with complex root causes, including limitation in access to certain types of inpatient beds (most commonly pediatric and adolescent beds) as well as outpatient service limitations which result in use of emergency departments as a routine site of care. ED boarding is routinely tracked by the Department of Public Health. A boarding patient is defined as any individual in an ED for 12 or more hours after a decision is made to admit or transfer the patient. See generally EXEC. OFFICE OF HEALTH & HUMAN SERVS., *ED Length of Stay Issues for Behavioral Health Patients* (Jan. 2013), <http://www.mass.gov/eohhs/docs/eohhs/behavioral-health/bh-discussion-01022013.pdf>; Elaine Rabin et al., *Solutions To Emergency Department 'Boarding' And Crowding Are Underused and May Need To Be Legislated*, 31 HEALTH AFFAIRS 1757 (2012), available at <http://content.healthaffairs.org/content/31/8/1757>.

wait over 12 hours for an inpatient admission. This showed that although only about 5.9%<sup>145</sup> of emergency department patients have diagnosed behavioral health-related conditions, these patients are disproportionately represented among ED boarders; over half of patients who boarded at area hospitals had a behavioral health diagnosis.<sup>146</sup> This data suggests that additional inpatient and outpatient behavioral health capacity is likely necessary in the region. While these data relate specifically to individuals awaiting an inpatient admission, the boarding problem also suggests there may be insufficient outpatient behavioral health resources that would forestall the need for a patient to go to an ED for behavioral health treatment.<sup>147</sup>

While outpatient service capacity and need – particularly for behavioral health patients – remain a central priority for the Commonwealth and the HPC,<sup>148</sup> data on outpatient service capacity and need remains limited. Thus, aside from the ED boarding data discussed above, the HPC is unable to determine the full extent to which the parties’ current outpatient service offerings align with community need. The parties commissioned a community assessment, issued in June 2013,<sup>149</sup> which provides some evidence regarding the general health concerns and prevalence of certain conditions in Hallmark’s service area. That assessment highlights community concerns about access to care and services for vulnerable populations (e.g., elders, families with young children, immigrants, low-income residents, women and children), and for behavioral health services. The assessment also identifies physical health conditions prevalent in the community, including cancer, cardiovascular disease, diabetes, and obesity.<sup>150</sup> However, as the assessment does not include any analysis of existing capacity to address these conditions, we are unable to evaluate the scope of any additional needed capacity.

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<sup>145</sup> Because of data limitations, the proportion of behavioral health-related ED visits at area hospitals is unknown. However, among ED visits at all Massachusetts hospitals, 5.9% are behavioral health-related. *See* CTR. FOR HEALTH INFO. & ANALYSIS, MASSACHUSETTS HEALTH CARE COST TRENDS: EFFICIENCY OF EMERGENCY DEPARTMENT UTILIZATION IN MASSACHUSETTS (2012), available at <http://www.mass.gov/chia/docs/cost-trend-docs/cost-trends-docs-2012/emergency-department-utilization.pdf>.

<sup>146</sup> The HPC examined emergency department boarding data collected by the Department of Public Health (hospital self-report) and emergency department wait-times reported by CMS. In addition to Hallmark and NSMC hospitals, area hospitals for this analysis included Addison Gilbert, Beverly, Cambridge Health Alliance, Mount Auburn, and Winchester Hospitals.

<sup>147</sup> *See, e.g.*, DAVID BENDER, NALINI PANDE & MICHAEL LUDWIG, A LITERATURE REVIEW: PSYCHIATRIC BOARDING (2008), available at <http://aspe.hhs.gov/daltcp/reports/2008/psybdlr.htm> (describing lack of inpatient capacity as a direct cause of psychiatric ED boarding, but also describing the rise in emergency visits by psychiatric patients as a proxy measure for failure of the outpatient mental health system); Vidhya Alakeson, Nalini Pande & Michael Ludwig, *A Plan to Reduce Emergency Room ‘Boarding’ of Psychiatric Patients*, 29 HEALTH AFFAIRS 1637 (2010) (stating that ED boarding of psychiatric patients is often the result of an inability to gain timely access to community-based care).

<sup>148</sup> The Health Planning Council convened pursuant to MASS. GEN. LAWS ch. 6A, §16T has focused its first year of planning activity solely on behavioral health services, including a substantial focus on outpatient service use and availability. The HPC is a statutory member of the Health Planning Council.

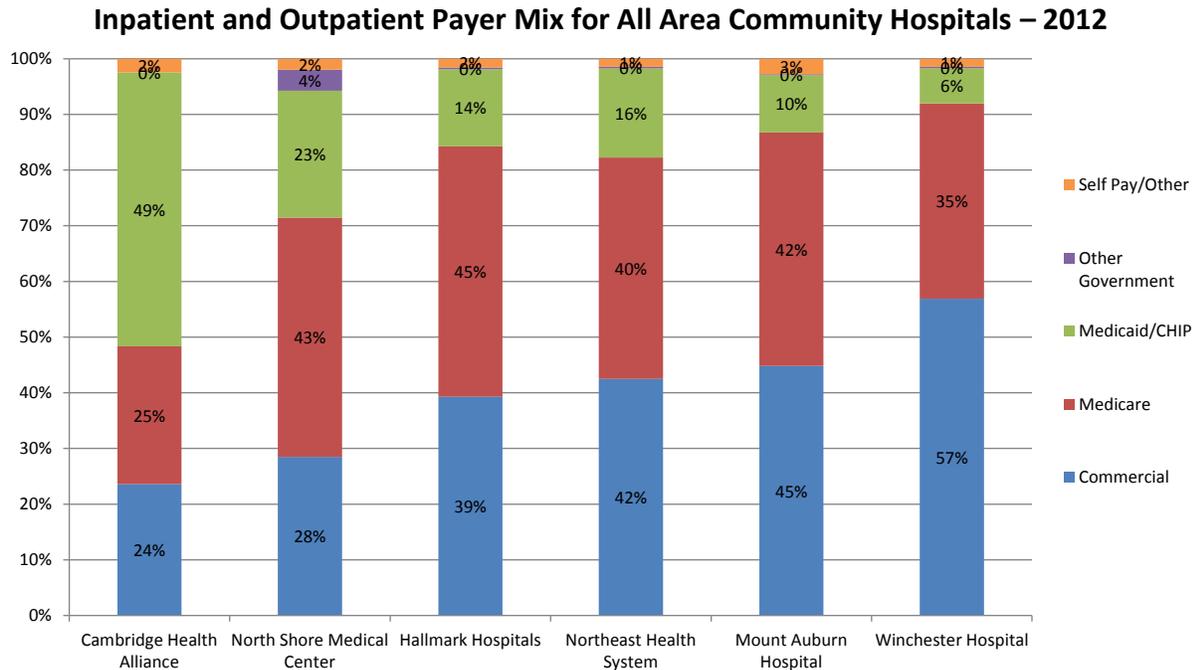
<sup>149</sup> Hallmark Determination of Need, *supra* note 33, at Exh. 7.

<sup>150</sup> The assessment consisted of interviews with key community leaders and stakeholders across the catchment area (n = 18) about top health concerns and vulnerable populations, community assets, and resources. Online and in-person community surveys (n = 387) were conducted by Hallmark among catchment area residents. Information about health concerns, behaviors and needs was collected. “Vulnerable populations” included elders, families with young children, immigrant groups, low-income residents, women, and children/youth. The assessment does not provide analysis of current service availability, barriers to access, or quantitative data on new service needs.

3. Unlike Other Partners Hospitals, NSMC Has a Higher Government Payer Mix than Most Area Hospitals; Hallmark Also Has a High Government Payer Mix With Hallmark-LMH Serving a Substantial Proportion of Medicare Behavioral Health Patients.

The HPC examined the payer mix of Partners’ general acute care hospitals and Hallmark, as measured by revenue and discharges.<sup>151</sup> From 2010 to 2012, each Partners hospital, with the exception of NSMC, had the highest commercial payer mix and/or lowest Medicaid/Children’s Health Insurance Program (CHIP) mix of any area hospital, based on revenue.<sup>152</sup> By contrast, NSMC had a lower commercial payer mix (28%) and higher combined Medicare and Medicaid/CHIP payer mix (66%) than most area hospitals.

When measured by revenue, Hallmark-LMH and Hallmark-MWH also had a higher government payer mix (59%) and a lower commercial mix (39%) than most area hospitals, as shown in the chart below. Among area community hospitals, Hallmark had the highest Medicare mix (45%).



Source: CTR. FOR HEALTH INFO. & ANALYSIS, HOSPITAL DATA ON GROSS PATIENT SERVICE REVENUE, FY10-FY12 (HPC Analysis).

<sup>151</sup> The HPC examined the payer mix at general acute care hospitals using (1) data gathered by CHIA on inpatient and outpatient revenue by payer and (2) MHDC data on discharges by payer. The HPC examined payer mix at specialty psychiatric hospitals using data gathered by CHIA on gross inpatient and outpatient service revenue.

<sup>152</sup> Where we examined two Partners hospitals together (MGH and BWH among Boston AMCs and Martha’s Vineyard and Nantucket Cottage among the four Cape and Island hospitals), the two Partners hospitals were the two highest commercial payer mix and/or lowest Medicaid/CHIP mix compared to other area hospitals. See PHS-SSH-HARBOR FINAL CMIR REPORT, *supra* note 28, at 24-25.

When the HPC examined payer mix by PSA, similar patterns emerged.<sup>153</sup> In Hallmark's PSA, both Hallmark-LMH and Hallmark-MWH had larger shares of government payer discharges (84% and 73%, respectively) and lower shares of commercial payer discharges (13% and 25%, respectively) than area community hospitals (68% government payer, and 31% commercial). Similarly, in NSMC's PSA, both NSMC hospitals had higher government and lower private payer mixes than area community hospitals (NSMC-Salem and NSMC-Union had 72% and 76% government payer discharges and 27% and 19% commercial discharges, respectively. Other local community hospitals averaged approximately 70% government payer discharges and 28% commercial discharges).

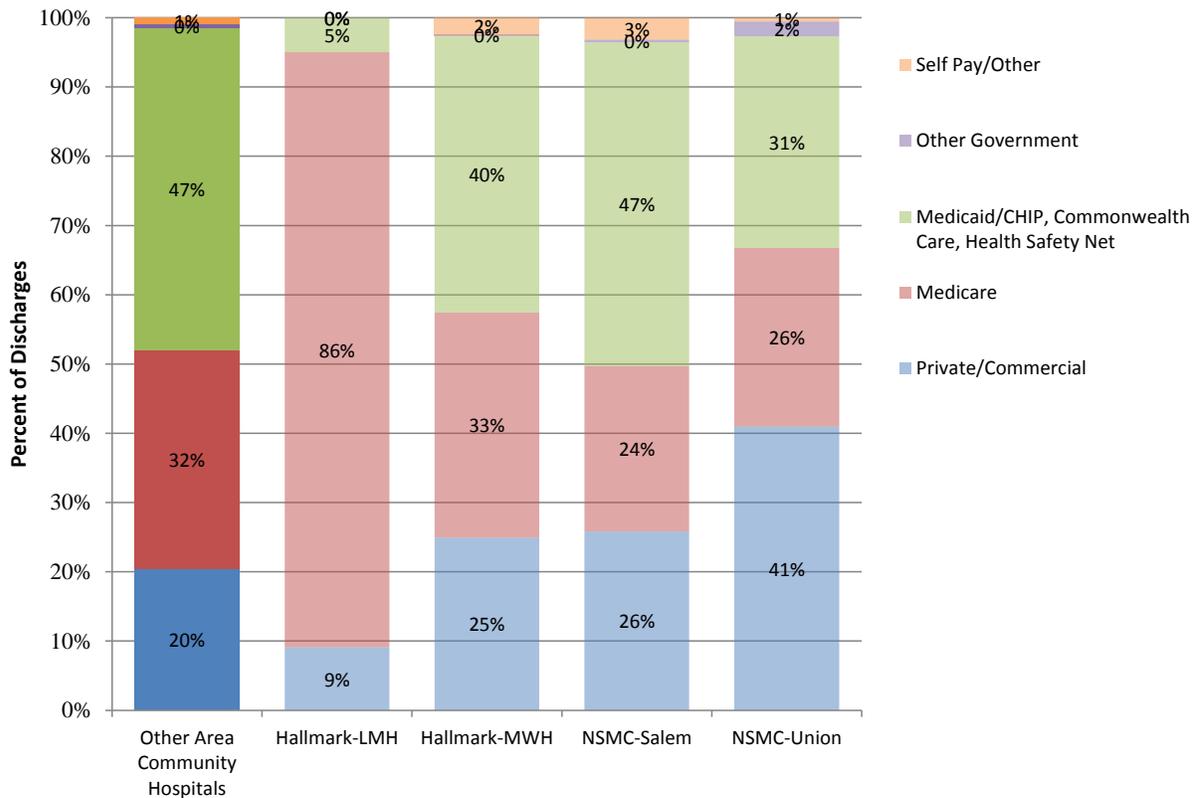
The HPC also reviewed the mix of behavioral health discharges by payer at area general acute care community hospitals in 2012.<sup>154</sup> As shown in the chart below, Medicare patients were a substantial proportion of the behavioral health discharges at Hallmark-LMH (86%). This is higher than the combined percentage of Medicare and Medicaid/CHIP behavioral health discharges at other local community hospitals (79%), and is likely related to Hallmark-LMH psychiatric beds being principally designated for geriatric-psychiatry patients. Both Hallmark hospitals also had a lower mix of commercial behavioral health discharges than either of the NSMC hospitals.

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<sup>153</sup> As mentioned previously, the HPC generally defines a hospital PSA to be the contiguous area closest to a hospital from which the hospital draws 75% of its commercial discharges. *See infra* note 177. A review of payer mix by PSA is instructive because it focuses on a fixed population (the residents of a hospital's PSA). Within that fixed population, we examine the cross-section that each hospital serves, and the payer mix of that cross-section. For example, in Hallmark's PSA, residents "used" or "needed" 48,269 discharges in 2012. We then analyze the payer mix of the share (or cross-section) of those total PSA discharges provided by different categories of hospitals that serve residents of the PSA: Hallmark hospitals (LMH and MWH); NSMC hospitals (Salem and Union); other area community hospitals (Cambridge Health Alliance, Mount Auburn, and Winchester); and tertiary hospitals (those with a case mix index of 1.1 or more). In the NSMC PSA, residents used 32,047 discharges in 2012. The hospitals serving residents of the NSMC PSA include NSMC hospitals (Salem and Union); Hallmark hospitals; other area community hospitals (Northeast hospitals); and tertiary hospitals.

<sup>154</sup> To allow for direct comparison between similar area community hospitals, this analysis was not restricted to a PSA region, *see supra* note 131. Other community hospitals examined in this analysis were Mount Auburn, CHA, Addison-Gilbert, Beverly, and Winchester.

## Inpatient Behavioral Health Payer Mix for Area Community Hospitals – 2012 Discharges



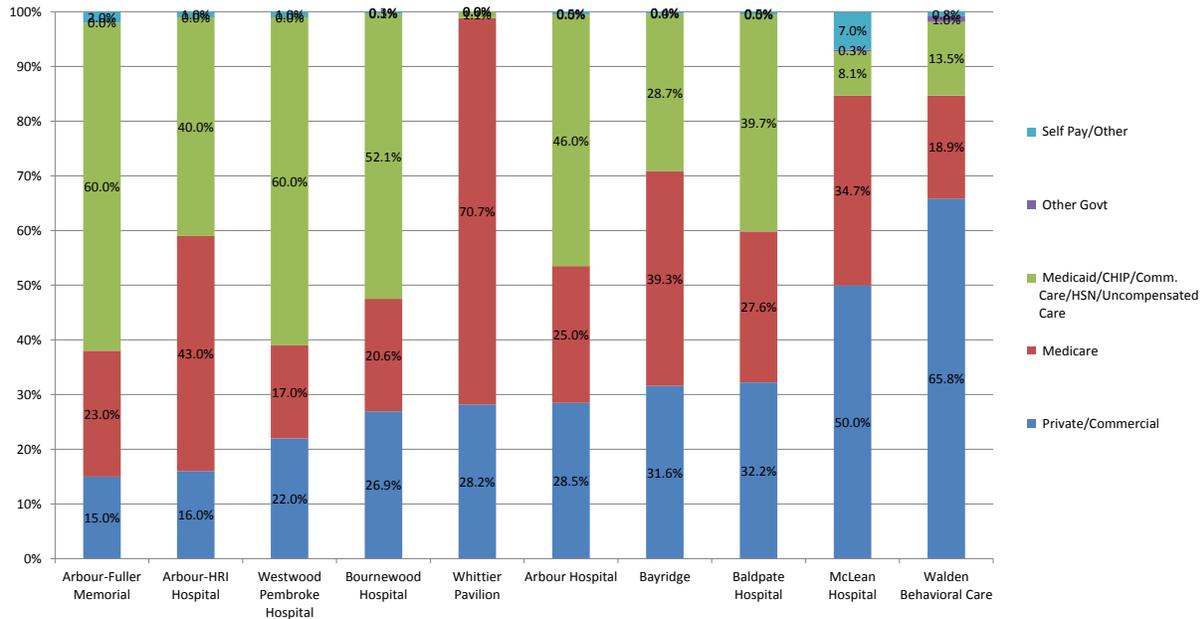
Source: 2012 MHDC DISCHARGE DATA, BEHAVIORAL HEALTH DISCHARGES (ALL HOSPITALS, COMMERCIAL AND NON-COMMERCIAL PAYERS)

As shown above, NSMC-Union – where the parties propose to consolidate all inpatient behavioral health services – had the highest mix (41%) of commercial behavioral health discharges of any area hospital. The HPC also reviewed the payer mix of all Partners general acute care hospitals compared to the average payer mix across all general acute care hospitals in Massachusetts, and found that NSMC-Union has a significantly higher mix of commercial behavioral health discharges than the statewide average of 31%.

Lastly, since the proposed change in services at NSMC-Union involves creating a specialty psychiatric facility, the HPC reviewed the payer mix (by revenue) of all specialty psychiatric facilities in the state. This showed that, consistent with findings for Partners’ general acute care facilities, Partners’ specialty psychiatric facility, McLean Hospital, has a lower mix of Medicaid revenue (8%) and higher mix of commercial revenue (50%) than other specialty psychiatric facilities in Massachusetts.<sup>155</sup>

<sup>155</sup> We understand that Walden Behavioral Health focuses on a subset of the services provided by the other psychiatric hospitals listed (primarily treatment for eating disorders and related disorders).

## Inpatient and Outpatient Payer Mix for Specialty Psychiatric Facilities – 2012



Source: CTR. FOR HEALTH INFO. & ANALYSIS, HOSPITAL DATA ON GROSS PATIENT SERVICE REVENUE, FY10-FY12, (HPC Analysis).

In sum, based upon available measures, the parties are important providers of inpatient services, including behavioral health. In general, general acute care bed capacity in the region may exceed need. However, evidence indicates there is likely a need for enhanced inpatient and outpatient behavioral health capacity. There are inadequate data to allow us to evaluate need for other outpatient services proposed in this transaction. Compared to other Partners hospitals and to area hospitals, the NSMC and Hallmark hospitals tend to have a higher government payer mix and lower commercial mix, with Hallmark-LMH serving a particularly high mix of Medicare behavioral health discharges. Other Partners hospitals, including McLean, tend to have a higher commercial mix.

## IV. IMPACT PROJECTIONS (2014 ONWARD)

Chapter 224 of the Acts of 2012 (Chapter 224) directs the HPC to enhance the transparency of significant changes to our health care market, given that provider alignments and consolidations impact health care system performance and levels of medical spending<sup>156</sup> As discussed in the Introduction, the purpose of this report is to fulfill this important transparency function, by advancing an evidentiary record that can inform and complement other work being done in the Commonwealth to monitor and oversee our health care market. For example, the recent proposed settlement filed by the AGO, Partners, and related health care providers concerning Partners’ market conduct and expansion plans requires the AGO and Partners to

<sup>156</sup> See generally PHS-SSH-HARBOR FINAL CMIR REPORT, *supra* note 28; *ProMedica Health System, Inc. v. FTC*, No. 12-3583, 2014 U.S. App. LEXIS 7500 (6th Cir. Apr. 22, 2014); *FTC v. St. Luke’s Health Sys. Ltd.*, No. 1:13-CV-00116-BLW (D. Id. Jan. 24, 2014).

confer on mitigating any material price impacts identified by the HPC in this CMIR. In fact, the hearing date on the proposed settlement was postponed specifically to allow for consideration of this Final Report.<sup>157</sup>

## A. COST IMPACT

One of the HPC's central responsibilities is to monitor the Commonwealth's progress in meeting the health care cost growth benchmark set forth in Chapter 224.<sup>158</sup> Growth in total medical spending is driven by four principal factors: unit price, utilization, provider mix, and service mix. Provider consolidations or alignments can affect all of these factors, resulting in:

- Increased bargaining leverage, or shifts in incentives to use existing bargaining leverage, which allow providers to negotiate higher commercial prices and other favorable contract terms;
- Changes in physician, hospital, or other facility prices as consolidations or alignments change the affiliations of provider groups;
- Changes in site of care, or use of differently priced providers, as physicians shift utilization in response to consolidations or alignments; and
- Changes in the nature or amount of services patient populations utilize as a result of proposed care delivery changes.

Provider consolidations and alignments can also result in changes which have the potential to impact total medical spending indirectly, such as increased investments in services and facilities or operational efficiencies that decrease overhead costs. These changes will impact total medical spending only insofar as the provider chooses to pass on its costs or savings to payers and consumers when negotiating future reimbursement rates.

We examined each of these mechanisms for its potential cost impact<sup>159</sup> and found:

### Market Structure

- This transaction will reinforce Partners' position as the provider with the highest share of inpatient and PCP services in its northeastern Massachusetts service areas and will strengthen Partners' ability and incentives to negotiate price increases and other favorable contract terms for Hallmark.

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<sup>157</sup> Order Granting Commonwealth's Motion to Extend Hearing Date to Consider the Parties' Joint Motion to Enter Consent Judgment (Without Objection), In Re Comm. of Mass. v. Partners Health Sys., Inc., South Shore Health and Ed. Corp., and Hallmark Health Corp., Civil Action No. 14-2033-BLS (Mass. Superior Ct. July 17, 2014).

<sup>158</sup> MASS. GEN. LAWS ch. 6D, § 9 (2012) (requiring the HPC to establish annually "a health care cost growth benchmark for the average growth in total health care expenditures in the commonwealth," pegged to the growth rate of the gross state product).

<sup>159</sup> Our cost impact analysis is based primarily on data from the three largest payers, who represent 80% of the commercial market. As such, our cost projections tend to underestimate the total dollar impact to commercial spending.

The settlement aims to mitigate Partners' bargaining leverage by allowing payers to negotiate for all or only certain components of the Partners network (AMC providers, community providers, the South Shore providers, and the Hallmark providers). As described in Exhibit B and the HPC Comment, it is unclear whether component contracting will adequately address the exercise of Partners' bargaining leverage. Specifically, component contracting is unlikely to be effective in eliminating a provider organization's ability and incentives to raise prices where, as here, the provider organization consists of components that are direct competitors.<sup>160</sup> The impact of this provision will also depend on whether and to what extent payers vigorously pursue this option,<sup>161</sup> and on how the market responds.<sup>162</sup> Finally, it is unclear whether this provision can effect lasting changes to the market structures and incentives that underlie the operation of bargaining leverage. Our analysis indicates that without such lasting changes, an expanded Partners system would likely command increased market power at expiration of the proposed settlement.

### Unit Price

- As the Hallmark physicians become more tightly integrated with Partners,<sup>163</sup> changes in physician prices are anticipated to increase total medical spending in northeastern Massachusetts.
- If Partners seeks parity between Hallmark's prices and those at its owned community hospitals, these changes in hospital prices will increase total medical spending in northeastern Massachusetts.
- Services at the facilities the parties propose will be licensed and operated by MGH are expected to be billed at higher rates as a result of this transaction, increasing total medical spending in northeastern Massachusetts.

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<sup>160</sup> As detailed in the HPC's analysis of the parties' Written Response, Hallmark and Partners are direct competitors in Hallmark's PSA. If Hallmark became unavailable to consumers, the next most popular choice for residents of this PSA are Partners' hospitals. This fact contradicts the parties' claims that they would be unable to seek supra-competitive rates due to the threat of exclusion of Hallmark and "the loss of potentially substantial amounts of revenue." Written Response, *supra* note 11, at 10. To the contrary, Partners would still receive the revenue for many of these former Hallmark patients, and is still incentivized to seek prices for its various components that maximize profits across its system. Even if a payer could construct an insurance network for local residents that did not include Hallmark, it would still need alternate hospitals to serve those patients, and Partners owns the next most popular hospitals as well. The fact that these competitor hospitals are now under common ownership means that component contracting is unlikely to be effective in eliminating the provider organization's ability and incentives to demand price increases higher than what would be possible if each hospital were truly a financially independent competitor.

<sup>161</sup> For discussion of a specific example where the FTC pursued a similar remedy, but payers did not exercise their option and prices did not revert to competitive levels, see HPC Analysis of the Written Response, *supra* note 11, at 6.

<sup>162</sup> This includes how component contracting will operate in the context of a shift to integrated care delivery structures and global payment arrangements, and whether purchasers and consumers find more limited networks that include only components of provider systems appealing. For further discussion of these points, see *id.* at 5-7.

<sup>163</sup> See Affiliation Agreement, *supra* note 8, at Art. 5.6.1. After the effective date of the transaction, Hallmark medical staff physicians who are "interested in a more integrated relationship" will be given a choice of being directly employed by either Hallmark Health Medical Associates (HHMA), Partners' community physician organization (newly created), or the Massachusetts General Physicians Organization (MGPO) on an exception basis. *Id.*

As the HPC has previously noted, under the constraints on unit price growth in the proposed settlement, price increases from the Hallmark transaction “would not necessarily result in a net increase in average price growth across the Partners network”<sup>164</sup> for the 6.5 year duration of that provision. However, Partners retains flexibility to allocate price increases across its community providers to optimize revenue and market position, including seeking supra-competitive rates (rates higher than those obtainable in a competitive market) for individual community providers like Hallmark. Specifically, Hallmark and Partners’ community hospitals and physicians received nearly \$1.4 billion in 2011 revenue from payers monitored under the settlement. This means that if general inflation were 1.5%, Partners could negotiate rates in the first year of the settlement resulting in more than \$22 million in additional payer spending for these community providers, and higher amounts in each subsequent year as these providers’ baseline revenue increases. Given the amount of dollars available in the community pool, should Partners elect to treat Hallmark consistently with its other owned community providers, it could do so. These increased rates would set a permanently increased baseline upon which future price increases for Hallmark would be negotiated, and would permanently increase baseline total medical spending and premiums in an area of the state that has thus far not experienced the market impact of a local Partners facility.<sup>165</sup>

Perhaps most importantly, without lasting change to the market structures and incentives that underlie the operation of bargaining leverage, there are inherent limitations to the capacity of time-limited price constraints to contain costs long-term. The proposed settlement does not permanently alter those features of the Partners system, such as its size and market share, which contribute to its current market power to command higher prices and other favorable contract terms. Rather, the settlement allows Partners to grow by acquiring Hallmark’s hospitals, outpatient centers, associated physicians, and other providers. Thus, at the expiration of price constraints, Partners would likely enjoy even greater leverage to command supra-competitive rates and other favorable contract terms.<sup>166</sup>

### Provider Mix

- Changes in site of care/referral patterns are unlikely to result in significant savings. If Partners seeks rate increases for Hallmark providers, anticipated changes in referral patterns to higher priced providers will increase total medical spending.

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<sup>164</sup> MASS. HEALTH POLICY COMM’N, REVIEW OF PARTNERS HEALTHCARE SYSTEM’S PROPOSED ACQUISITION OF HALLMARK HEALTH CORPORATION (HPC-CMIR-2013-4), PURSUANT TO M.G.L. C. 6D, § 13, PRELIMINARY REPORT [hereinafter PRELIMINARY REPORT]; HPC Comment, *supra* note 5, at 3.

<sup>165</sup> For further discussion of these points, see HPC Analysis of the Written Response, *supra* note 11, at 3-4.

<sup>166</sup> Such price increases are consistent with evidence regarding the behavior of other providers following the expiration of rate caps. See, e.g., Jeff Engel, *Spectrum Health, Metro Health, and St. Mary’s Are Charging More for Hospital Services*, GRAND RAPIDS PRESS, July 3, 2010, available at [http://www.mlive.com/business/west-michigan/index.ssf/2010/07/spectrum\\_health\\_metro\\_health\\_a.html](http://www.mlive.com/business/west-michigan/index.ssf/2010/07/spectrum_health_metro_health_a.html) (describing 8% price increases at Spectrum Health after the expiration of a seven year price cap set forth in *FTC v. Butterworth Health Corp.*, 946 F. Supp. 1285 (W.D. Mich. 1996)); Stewart Ain, *After Merger’s Bumpy Start, North Shore-L.I.J. is Clicking*, N.Y. TIMES, Dec. 17, 2000 (describing price increases driven by increased bargaining leverage following the expiration of a two year price cap referenced in *U.S. v. Long Island Jewish Med. Ctr.*, No. CV 97-3412, 983 F. Supp. 121, 142-144 (E.D. Ny. Oct. 23, 1997)).

The material price impact of changes in site of patient care across differently priced providers – including anticipated shifts in care to Partners providers in connection with this transaction – are not fully addressed by the proposed settlement. Specifically, increased spending due to shifts in patient flow to higher-priced providers is not included in the agreement’s unit price constraint, but rather would be measured as increases in TME. Since the agreement only monitors the TME for Partners’ commercial risk business, anticipated increases in TME as Partners grows its non-risk books of business, currently including PPO and non-risk HMO/POS patients, are not monitored. The latest publicly filed data by Partners (for 2012) indicates that the commercial risk business monitored by the TME provision of the agreement is about 11% of Partners’ total commercial business.<sup>167</sup> Over time, the increased spending baseline from such site of care effects will impact consumers and payers in northeastern Massachusetts.

### Utilization

- The parties have outlined a set of PHM strategies that have the potential to reduce unnecessary utilization and wasteful spending. However, the parties have not demonstrated that potential savings from these proposed PHM initiatives are likely to offset the spending increases from this transaction.

The remainder of this section discusses these findings regarding the anticipated cost impacts of the proposed transaction, which bear on the need for additional or alternative commitments by the parties to those set forth in the settlement to address these negative impacts.

1. This Transaction will Reinforce Partners’ Position as the Provider with the Highest Share of Inpatient and PCP Services in its Northeastern Massachusetts Service Areas and Will Strengthen Partners’ Ability and Incentives to Negotiate Price Increases and Other Favorable Contract Terms.

The HPC examined whether the proposed transaction will enhance the parties’ ability to charge supra-competitive rates by studying market shares and anticipated changes in market concentration.<sup>168, 169</sup> As noted in Part II, Partners and Hallmark are already contracting affiliates and Partners already negotiates rates with most of the major payers in Massachusetts for Hallmark’s hospitals and physicians. Thus, whether the proposed transaction is likely to create upward pressure on rates will depend on both the structural changes associated with the transaction – as measured by the market share and concentration analyses below – and the extent to which Partners already has incentives to negotiate for Hallmark’s rates as if the two were fully financially integrated.

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<sup>167</sup> See Partners Pre-Filed Testimony, *supra* note 14. See also HPC Comment, *supra* note 5, at 4.

<sup>168</sup> We also examined anticipated changes in patient flow patterns if the Hallmark hospitals were to become unavailable to consumers (diversion analysis), which provided results consistent with our concentration analysis.

<sup>169</sup> To provide a public analysis of the likely nature of a transaction’s competitive effects, our analysis mirrors many of the initial steps that would likely be included in an antitrust investigation, without repeating all of the econometric modeling of changes in competition (e.g., “willingness-to-pay” analysis) that might be pursued in a law enforcement context.

Joint contracting and full financial integration embody different structures and bargaining incentives. For example, Partners does not currently “own” Hallmark’s revenue, and as such does not directly profit if Hallmark’s margins or volume increase. Thus, Partners’ current incentives to negotiate Hallmark’s rates are likely different from Partners’ incentives to negotiate rates for entities with which Partners is fully financially integrated (e.g., hospitals that it owns), where Partners would directly profit from increased volume or margins.<sup>170</sup> Upon full financial ownership of Hallmark, Partners would likely have increased alignment of both ability and incentives to command higher rates for Hallmark.<sup>171</sup> At the same time, given that the parties have a preexisting joint contracting relationship, we would not expect the changes in leverage and incentives here to be as great as a situation in which the parties had no preexisting relationship. Our structural analysis therefore assesses the range of impact the proposed transaction is likely to have on negotiating leverage and incentives.<sup>172</sup>

*a. Market Shares*

As described in the PHS-SSH-Harbor Final CMIR Report and the Lahey-Winchester Final CMIR Report, commercial prices for health care services are established through contract negotiations between payers and providers. The results of these negotiations – prices that payers will pay for services as well as other contractual terms – are influenced by the bargaining leverage of the negotiating parties. A transaction may have competitive effects if it changes the bargaining leverage or incentives of the negotiating parties.

An analysis of competitive effects often begins with an assessment of relevant markets<sup>173</sup>:

*Product Market:* Based on the services offered by Partners and Hallmark and the availability of robust data, we evaluated potential competitive effects on general acute care inpatient services and primary care services for patients living in Hallmark’s PSA.<sup>174,175</sup> To

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<sup>170</sup> Differences in incentives between principals and agents are widely studied in economics, as it is well-understood that the objectives of a principal (here, Hallmark) and an agent (here, Partners as the entity negotiating on Hallmark’s behalf) are often not fully aligned. See, e.g., David E.M. Sappington, *Incentives in Principal-Agent Relationships*, 5 J. ECON. PERSPECTIVES 45 (1991), available at <http://www.isr.umd.edu/~hyongla/TMP/PAPERS/IncentivesPrincipalAgentRelationship.pdf> (describing some sources of key incentive problems that arise in agency relationships, such as asymmetry of the principal’s and agent’s pre-contractual information or beliefs, differences in risk aversion, and problems in measuring the agent’s performance). After Partners owns Hallmark, and is no longer Hallmark’s agent in payer contract negotiations, we would expect that their incentives would be more fully aligned.

<sup>171</sup> We note that Hallmark’s revenue does not currently directly impact Partners’ revenue, and Hallmark’s HMO/POS and PPO rates are below Partners’ community hospital HMO/POS and PPO rates. See *supra* Sections III.A.3 and III.A.4.

<sup>172</sup> Although additional review might be able to more precisely estimate the degree to which the parties’ existing joint contracting relationship differs from full financial integration, that analysis and thus the exact change in pricing incentives is beyond the scope of this time-limited review.

<sup>173</sup> A relevant market includes the narrowest set of products (or hospitals) and the narrowest geography in which a hypothetical monopolist over all hospitals could sustain a small but significant increase in price, or “SSNIP.”

<sup>174</sup> This analysis focuses on hospital discharges for general acute care services, excluding normal newborns (including normal newborns would effectively double-count a single delivery as two discharges), non-acute discharges (e.g., discharges with a length of stay of greater than 180 days, rehabilitation discharges), and out-of-state patients.

provide a more detailed analysis, we also reviewed the market for general acute care inpatient services subdivided into tertiary/quaternary acute care inpatient services (tertiary services) and non-tertiary/non-quaternary acute care inpatient services (non-tertiary services).<sup>176</sup>

*Geographic Market:* Our analysis focuses on the likely impact of the proposed transaction on consumers living in the Hallmark and NSMC hospital PSAs,<sup>177</sup> using information on patient-based market shares. This information shows the hospitals that patients in each of the Hallmark and NSMC PSAs choose for certain general acute inpatient hospital care. We also study inpatient market shares in the primary and secondary service areas defined by the parties.<sup>178</sup> In addition, we studied market shares in the primary care service area of Hallmark.

As described in Section III.A.2, Partners and Hallmark respectively have the largest (32.3%) and third largest (15.2%) shares of commercial discharges in Hallmark's hospital PSA. Combined, they capture approximately 48% of the commercial discharges in the PSA. As noted in Part II, the parties contract jointly with most major payers for the majority of Hallmark's business. However, the parties do not share common financial ownership (e.g., Partners does not own Hallmark's revenue, and as such does not directly profit if Hallmark's margins or volume increase), and Hallmark negotiates with some commercial payers separately from Partners. Thus, although Partners and Hallmark are financially and contractually related, their financial interests are not entirely aligned. For that reason, it is likely that Partners' current competitive significance in the marketplace is reflected in an effective market share that is between these lower and upper market share estimates (i.e., between 32.3% and 48%). As a result of the transaction, Partners' market share will shift entirely to the upper bound (48%), which would reinforce Partners' position as the provider with the largest share of inpatient services in this PSA and would align Partners' and Hallmark's incentives such that Partners would have both the ability *and* incentives to command higher rates for Hallmark. The next closest competitors for commercial inpatient services in Hallmark's PSA are Lahey with 22.8% of commercial discharges, followed by Beth Israel with 9.2% of commercial discharges.<sup>179</sup> As described in Section IV.A.5, this transaction is anticipated to result in net shifts in patient volume from other providers to Hallmark, which could further increase Partners' share of commercial inpatient services in Hallmark's PSA.

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<sup>175</sup> Given the importance of inpatient care to the health care market, competitive effects in the market for inpatient general acute care services may also be probative of competitive effects in other, related health care markets.

<sup>176</sup> For the purposes of these analyses, tertiary care is defined as the set of DRGs that are primarily performed at facilities with a case mix index of 1.0 or more.

<sup>177</sup> The HPC applied its general method for defining a hospital PSA, which focuses on the contiguous zip codes closest to the hospital from which the hospital draws 75% of its commercial discharges. For more information on the HPC's PSA methodology, see PHS-SSH-HARBOR FINAL REPORT, *supra* note 28, at 37, n.115 and 38, n.118.

<sup>178</sup> The parties have provided the HPC with the list of zip codes they have identified to be in each of their primary and secondary service areas. We understand the primary service area to be defined as the zip codes from which the hospital draws 75% of all of its discharges, and the secondary service area to be defined as the zip codes from which the hospital draws 90% of all of its discharges.

<sup>179</sup> These results are somewhat more pronounced in the Hallmark PSA as defined by the parties. Using their definition, Partners and Hallmark respectively have the largest (28.7%) and second largest (26.0%) shares of all discharges. Combined, they would capture nearly 55% of all discharges in the PSA. The next closest competitor in terms of inpatient share would be Lahey, with 15.3% of all discharges, followed by Beth Israel Deaconess Care Organization (BIDCO), with 9.1% of all discharges.

In NSMC's PSA, Partners and Hallmark respectively have the largest (58.9%) and fifth largest (1.9%) shares of commercial discharges, or approximately 61% combined. Lahey has the second largest market share in this PSA, with 28.9% of commercial discharges, and Beth Israel has the third largest share, with 4.0% of commercial discharges.<sup>180</sup>

The HPC also analyzed share of PCP services in Hallmark's primary care PSA, using APCD data. As discussed in Section III.A.2, we found that Partners physicians, including Hallmark, have the largest share of PCP services in Hallmark's primary care PSA, as measured by either revenue (approximately 40%) or visits (approximately 35%).<sup>181</sup> The parties have described plans to recruit 25 net new PCPs to Hallmark, who could further increase PCHI's share of PCP services in Hallmark's primary care PSA.

#### *b. Market Concentration for Inpatient Services*

We calculated market concentration before and after the proposed transaction in the Hallmark and NSMC hospital PSAs using the Herfindahl–Hirschman Index (HHI).<sup>182, 183</sup> The change in concentration associated with a transaction is probative of the likely impact of the transaction on market power and the ability of the parties to negotiate higher prices.<sup>184</sup> The Department of Justice (DOJ) and the Federal Trade Commission (FTC) use market shares within PSAs and HHIs as initial screens for determining whether a given transaction raises competitive concerns and warrants further scrutiny.<sup>185</sup>

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<sup>180</sup> The results are also more pronounced in the NSMC PSA as defined by the parties. Using their primary service area definition, Partners and Hallmark respectively have the largest (70.8%) and fourth largest (1.7%) shares of all discharges. Combined, they would capture about 73% of all discharges in the PSA. The next closest competitor in terms of inpatient market share in NSMC's PSA would be Lahey, with 19.4% of all discharges, followed by Beth Israel, with 2.3% of all discharges. Using their secondary service areas, Partners and Hallmark respectively have the largest (35.6%) and third largest (9.8%) shares of all discharges.

<sup>181</sup> Analyzed separately, Hallmark physicians have approximately 14% to 16% of primary care revenue and 13% to 15% of primary care visits in Hallmark's primary care PSA.

<sup>182</sup> The HHI is a commonly used measure of market concentration and an indicator of the amount of competition among systems. The HHI is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. For example, for a market consisting of four firms with shares of 30, 30, 20, and 20 percent, the HHI is 2,600 (900 + 900 + 400 + 400 = 2,600). HHIs range from near 0 (perfect competition) to 10,000 (one firm with a monopoly). When firms are equally sized, the HHI is equal to 100 times the per-firm market share. For example, two firms with a 50% share each give rise to an HHI of 5,000. Three firms with 33.3% share each give rise to an HHI of 3,333, and so on.

<sup>183</sup> We did not include a similar calculation of market concentration for primary care due to data limitations. In particular, system affiliations are unconfirmed for a number of primary care physicians in that service area.

<sup>184</sup> For example, the FTC and DOJ have noted that “[m]ost studies of the relationship between competition and hospital prices generally find increased hospital concentration is associated with increased price.” U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, IMPROVING HEALTHCARE: A DOSE OF COMPETITION 1, 15 (July 2004), available at <http://www.ftc.gov/reports/healthcare/040723healthcarerpt.pdf>.

<sup>185</sup> See, e.g., U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, PROPOSED STATEMENT OF ANTITRUST ENFORCEMENT POLICY REGARDING ACCOUNTABLE CARE ORGANIZATIONS PARTICIPATING IN THE MEDICARE SHARED SAVINGS PROGRAM 6 (2011), available at <http://www.justice.gov/atr/public/guidelines/269155.pdf>. See also 76 FED. REG. 67026, 67028 (Oct. 28, 2011), available at <http://www.gpo.gov/fdsys/pkg/FR-2011-10-28/pdf/2011-27944.pdf>.

**DOJ/FTC Horizontal Merger Guideline HHI Thresholds<sup>186</sup>**

Post-Merger Market	HHI	$\Delta$ in HHI	Presumption
Moderately Concentrated	1,500 to 2,500	>100	Potentially raises significant competitive concerns and often warrants scrutiny
Highly Concentrated	> 2,500	100 to 200	Potentially raises significant competitive concerns and often warrants scrutiny
		> 200	Presumed to be likely to enhance market power

Below, we summarize the pre-merger and post-merger inpatient HHIs in the Hallmark and NSMC service areas under both the HPC definition of PSAs and the parties’ definition of PSAs. We present a lower and upper bound calculation of these HHIs. In the “lower bound” scenario, the HHIs presented do not include non-owned hospital contracting affiliates of a provider system in that system’s market share. In the “upper bound” scenario, such non-owned contracting affiliates are included in the affiliated system’s market share.<sup>187</sup>

**Inpatient HHI Calculations: Hallmark and NSMC PSAs**

	LOWER BOUND ANALYSIS			UPPER BOUND ANALYSIS		
	Pre-Merger HHI	Post-Merger HHI	$\Delta$ HHI	Pre-Merger HHI	Post-Merger HHI	$\Delta$ HHI
<b>Hallmark PSA (HPC Defined)</b>	1,952	2,930	+978	3,017	3,017	+0
<b>Hallmark PSA (Party Defined)</b>	1,898	3,389	+1,490	3,504	3,504	+0
<b>NSMC PSA (HPC Defined)</b>	4,328	4,548	+220	4,563	4,563	+0
<b>NSMC PSA (Party Defined)</b>	5,407	5,652	+245	5,663	5,663	+0

These analyses indicate that the proposed transaction is anticipated to have a significant market impact – either (1) because it substantially increases the resulting system’s market power

<sup>186</sup> See U.S. DEP’T OF JUSTICE, & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES (2010), available at <http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf>.

<sup>187</sup> The HHI calculations are a function of the merging parties’ shares; thus, there is a single pre- and post-merger HHI in the upper bound analysis because the Hallmark and Partners shares are considered to be combined regardless of whether the merger has occurred. Note that because Emerson Hospital is also included in the Partners share in the upper bound analysis, the post-transaction HHI in the lower bound and upper bound scenarios are not identical.

or (2) because it reinforces the system’s existing market power and strengthens its incentives to use that market power to increase prices at Hallmark. If the bargaining leverage under the parties’ current joint contracting relationship differs significantly from that under full financial integration, the increases in concentration of inpatient services resulting from this transaction, which range from an increase of 978 to 1,490 points in Hallmark’s PSA and 220 to 245 in NSMC’s PSA, indicate that the transaction would be *presumed likely to enhance market power* under the DOJ/FTC guidelines.<sup>188, 189</sup> Alternatively, if the bargaining leverage under the parties’ current joint contracting relationship is substantially similar to that under full financial integration, both the Hallmark and NSMC PSAs are exceptionally concentrated markets in which Partners already has the highest market share by a substantial margin, ranging from 48% to 61% of commercial discharges across the two PSAs. This degree of existing market power raises its own set of concerns that Partners could use its existing market power to seek price increases once Partners owns Hallmark and profits directly from increased Hallmark revenue.

In the next section, we model the impact of this market power on total medical spending in northeastern Massachusetts as a result of anticipated changes in physician, hospital, and ambulatory facility prices.<sup>190</sup>

2. As the Hallmark Physicians Become More Tightly Integrated with Partners, There Will Likely Be Changes in Prices that Set an Increased Baseline Upon Which Future Price Increases Would Be Negotiated, and that Increase Baseline Total Medical Spending in Northeastern Massachusetts.

As described above in Section III.A.4, Partners’ physician groups have some of the highest prices in northeastern Massachusetts. Although they contract through PCHI, Hallmark

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<sup>188</sup> Econometric studies of health care transactions and market models indicate that significant HHI increases, particularly in concentrated markets, increase providers’ ability to leverage higher prices and other favorable contract terms from commercial payers. One review found that an HHI increase of 800 points within a metropolitan statistical area (a generally larger geographic area than a PSA) led to an average price increase of 5%. WILLIAM VOGT & ROBERT TOWN, ROBERT WOOD JOHNSON FOUND., HOW HAS HOSPITAL CONSOLIDATION AFFECTED THE PRICE AND QUALITY OF HOSPITAL CARE? (2006), available at [http://www.rwjf.org/content/dam/farm/reports/issue\\_briefs/2006/rwjf12056/subassets/rwjf12056\\_1](http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2006/rwjf12056/subassets/rwjf12056_1).

<sup>189</sup> The potential competitive impact of the transaction is reinforced by our results from a “diversion” analysis. A regression analysis of “diversion” is another way to measure anticipated competitive effects of a hospital merger. Diversion analyses predict where people would go for inpatient care if a hospital were no longer an option for its patients; a high rate of diversion from one hospital to another identifies them as close substitutes. This analysis can be probative of competitive effects because mergers between close substitutes effectively remove a competitor from the marketplace that could otherwise have acted as a constraint on price increases. In examining where Hallmark’s discharges would shift if Hallmark were no longer an option for consumers, we found that Partners hospitals are Hallmark’s closest substitute: About 44.5% of Hallmark’s discharges would shift to a Partners hospital. Winchester Hospital is Hallmark’s second closest substitute, receiving 15.3% of the diverted discharges. Hallmark’s third and fourth closest substitutes are Lahey and BIDMC, respectively. U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES, *supra* note 186, at § 6.1.

<sup>190</sup> In these sections, we do not repeat all of the econometric modeling of changes in competition (e.g., “willingness-to-pay” analysis) that might be pursued in a law enforcement context to assess the magnitude of the price increase that could be sought by the parties as result of increased bargaining leverage. Rather, we model the anticipated scenario where Partners seeks parity in the rates for Hallmark physicians and hospitals consistent with the rates of its currently owned physicians and hospitals.

physicians do not currently receive prices as high as many Partners groups, including its employed or “integrated” groups. As a key element of the proposed transaction is the “tighter integration” of Hallmark and Partners physicians,<sup>191</sup> one mechanism by which we anticipate this transaction will increase total medical spending in northeastern Massachusetts is through increases in Hallmark physicians’ prices to these higher “integrated” PCHI prices.

The HPC interviewed four major commercial payers to develop a deeper understanding of their contracts with PCHI. In Partners’ contracts with the three largest commercial payers, there is a tiered price structure depending on the type of physician and the classification of the physician’s RSO. Academic rates (for physicians in the Brigham and Women’s Physician Organization and Massachusetts General Physician Organization) are the highest, followed very closely by integrated rates (generally, for PCHI’s employed physicians in the community). Non-employed PCHI community physicians receive lower rates – sometimes substantially lower – known generally as “affiliated” rates.<sup>192</sup> Because Hallmark is an affiliated RSO, all HHPHO physicians currently receive affiliated rates, the lowest rate tier in the PCHI network.

The three major payers noted that certain terms in their current contracts would constrain Hallmark’s physicians from immediately moving to higher “integrated” rates. At the same time, they expressed varying concern regarding Hallmark physicians accessing these higher rates in future contracts as they become more tightly integrated, especially in light of Partners’ known contracting practices with respect to its tiered price structure. Consistent with payer perspectives, Partners’ contracting practices, and the parties’ own stated goals for “tighter integration” of Hallmark and Partners physicians, we modeled the impact of a varying number of HHPHO physicians receiving higher, integrated rates following expiration of current contracts (anticipated imminently for one payer and next year for the other two payers). Accordingly, we report on our results separately for two periods: 2015, when the anticipated increase in rates would only apply to one major payer, and 2016 onward, when the anticipated increase in rates would apply to all three major payers.

We modeled a range of cost impact based on the number of HHPHO physicians that would increase to PCHI’s higher, integrated rates. Under a conservative scenario, we model only the physicians currently employed by Hallmark increasing to PCHI’s integrated rates.<sup>193</sup> Under a moderate scenario, we adopt the parties’ position that, post-acquisition, PCHI will more tightly integrate with Hallmark physicians, ultimately employing a greater proportion of these

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<sup>191</sup> Affiliation Agreement, *supra* note 8, at Art. 5.6.1 (emphasizing that a “key component to successful implementation of the PHM model and the Affiliation will be tighter integration of the physicians and other practitioners . . . on the medical staffs of HHS and the Partners hospitals. [. . .] This closer alignment will enable the Practitioners to work more closely together and to function effectively under an integrated PHM model . . . [and] support a “right care, right site” strategy for all patients. [. . .] As of the Effective Date, the Parties agree that HHS medical staff physicians who are interested in a more integrated relationship should be offered the choice of being employed directly by (or leased to) one of the following: (a) HHC’s existing employed physician group Hallmark Health Medical Associates, Inc.; (b) the newly-created Partners community physician organization; or (c) on an exception basis, the Massachusetts General Physicians Organization, Inc.”).

<sup>192</sup> PCHI’s AMC rates are up to 4.2% higher than the community “integrated” rates for the three major commercial payers, and approximately 20-25% higher than Hallmark’s current “affiliated” rates for these payers.

<sup>193</sup> We characterize this scenario as conservative given the parties’ plans to offer employment to a significant proportion of Hallmark physicians who are not currently employed.

physicians. We model the impact if PCHI were to employ and receive higher rates for a similar proportion of Hallmark physicians as the proportion of physicians currently employed and receiving higher rates in Partners’ existing community hospital RSOs, North Shore Health System and Newton-Wellesley. The third scenario posits that all of Hallmark’s physicians would receive integrated rates.<sup>194</sup> The chart below shows the range of cost impact for the three largest commercial payers. We note that a major national payer that negotiates rates directly with Hallmark has confirmed the increase to integrated rates could occur immediately for payers who currently negotiate with Hallmark independently of Partners.<sup>195</sup>

**Cost Impact of Anticipated Changes to Physician Prices<sup>196</sup>**

	Average \$ Increase in Revenue (2015)	Average Annual \$ Increase in Revenue (2016 onward)	Approximate % Impact to Area Total Medical Spending (2016 onward)
<b>Conservative estimate</b>	\$1.3 million dollars	\$2.3 million dollars	0.3%
<b>Moderate estimate</b>	\$4.0 million dollars	\$6.8 million dollars	0.9%
<b>Higher estimate</b>	\$8.7 million dollars	\$14.6 million dollars	1.8%

3. If Partners Seeks Parity Between the Rates at Hallmark’s Hospitals and Those of Its Owned Community Hospitals, These Changes in Hospital Prices Will Set an Increased Baseline Upon Which Future Price Increases Would Be Negotiated, and Will Similarly Increase Baseline Total Medical Spending in Northeastern Massachusetts.

As described above in Section III.A.3, Partners hospitals receive higher prices than other area hospitals, and Partners receives comparable rates for its three greater Boston area community hospitals. As also discussed in Section IV.A.1.b, regardless of whether the transaction confers additional market power, market concentration and market shares indicate that Partners has existing market power to leverage rate increases.

<sup>194</sup> This scenario is possible given that the parties intend to offer employment to all Hallmark medical staff physicians who are “interested in a more integrated relationship.” Affiliation Agreement, *supra* note 8, at Art. 5.6.1. A major payer also confirmed it believes this is a realistic scenario given Hallmark’s contracting history with Partners and Partners’ current approach to physician integration.

<sup>195</sup> This payer indicated that its prices for any employed Hallmark physicians would increase by an estimated 200%.

<sup>196</sup> The anticipated increases in Hallmark physician revenue shown in this table correspond to effective rate increases of about 3% to 20%. If price growth for Hallmark physicians were capped at general inflation, that would better constrain, for the life of the cap, how much prices in this area of the state would grow a result of this transaction. For example, if Hallmark physician rates were capped at 1.5%, the annual impact to the major three commercial payers would only be about \$1.1 million, contributing to a smaller permanent increase to baseline total medical spending in northeastern Massachusetts.

As with changes in physician prices, the HPC interviewed the major commercial payers to develop a deeper understanding of the hospital rates in their contracts with Partners. The three largest commercial payers confirmed that Partners seeks consistent rates for its owned community hospitals in the greater Boston area. They expressed expectations that once Partners owns Hallmark, it will seek parity between Hallmark’s rates and the rates of its other area community hospitals, especially if it continues its current contracting practices with respect to this consistent price structure. These expectations accord with the parties’ public statements that such “community hospital rates” will apply to Hallmark.<sup>197</sup> Consistent with payer perspectives and the parties’ publicly stated intent, we find it likely that Partners will seek parity over time between Hallmark’s rates and those of its other area community hospitals. If Partners were to seek such rate parity, the price impact for the top three commercial payers would be approximately \$9.3 million dollars annually, which equates to a permanent increase in baseline total medical spending in this area of approximately 1.2%.<sup>198</sup>

**Cost Impact of Anticipated Changes to Hospital Prices<sup>199</sup>**

	Average Annual \$ Increase in Revenue (Over Time)	Approximate % Impact to Area Total Medical Spending
<b>Inpatient estimate</b>	\$5.2 million dollars	0.7%
<b>Outpatient estimate</b>	\$4.1 million dollars	0.5%
<b>Total</b>	<b>\$9.3 million dollars</b>	<b>1.2%</b>

4. Services at the Facilities the Parties Propose Will Be Licensed and Operated by MGH are Expected to be Billed at Higher Rates as a Result of This Transaction, Setting an Increased Baseline Upon Which Future Price Increases Will Be Negotiated, and Similarly Increasing Baseline Total Medical Spending in Northeastern Massachusetts.

As discussed in Section II.C, Partners proposes repurposing Hallmark-LMH as a short-stay mixed use facility that will be operated by, and licensed under, MGH. Similarly, Partners proposes that an MGH-licensed and operated outpatient cancer center will replace Hallmark’s Stoneham outpatient cancer facilities. While Partners has stated that the services rendered at

<sup>197</sup> See PARTNERS HEALTHCARE, PARTNERS HEALTHCARE/HALLMARK HEALTH: A REGIONAL APPROACH TO IMPROVE HEALTH CARE - FACT SHEET, available at [http://www.hallmarkhealth.org/doc\\_download/465-partners-healthcare-affiliation-fact-sheet](http://www.hallmarkhealth.org/doc_download/465-partners-healthcare-affiliation-fact-sheet).

<sup>198</sup> Both the physician price impacts reported in the previous section and the hospital price impacts reported here are based on Partners’ current rates. However, hospital and physician prices may be renegotiated when Partners’ contracts are up for renewal in late 2014 and 2015. Any increase in those rates resulting from those negotiations would contribute to a further increased level of baseline total medical spending in northeastern Massachusetts.

<sup>199</sup> The anticipated increase in hospital revenue shown in this table corresponds to an effective price increase of about 12%. If Hallmark’s price growth were capped at general inflation, that would better constrain, for the life of the cap, how much prices in this region would grow a result of this transaction. For example, if Hallmark’s rates were capped at 1.5%, the annual impact to the major three commercial payers would only be about \$1.2 million, contributing to a smaller permanent increase to baseline total medical spending in this region.

these facilities will be “community priced,” licensure under MGH and potential operation and staffing by MGH raise the likelihood that rates for these services will nonetheless increase.

For services rendered at these facilities, both a “professional fee”<sup>200</sup> and a “facility fee”<sup>201</sup> may apply. As the parties confirmed in their Written Response,<sup>202</sup> MGH-affiliated physicians are expected to deliver some proportion of services at these facilities, with Partners’ academic professional fees applying to the services rendered by those physicians. Those academic rates are significantly higher than Hallmark’s current professional rates, and are also higher than the “integrated” physician rates we anticipate Hallmark to receive in future.<sup>203</sup> The application of these academic professional fees to Hallmark-LMH and Hallmark Stoneham services is thus expected to increase total medical spending in northeastern Massachusetts.

Facility fees for Hallmark-LMH and Hallmark Stoneham are also anticipated to increase, notwithstanding the parties’ assertion that “community” facility rates, rather than MGH’s academic facility rates, will apply at Hallmark-LMH. First, even if Partners seeks only to apply the level of facility fees that often apply to its MGH facilities in the community, for most payers, these MGH community rates are still higher than the facility rates that currently apply to Hallmark-LMH and Hallmark Stoneham.<sup>204</sup> Second, some of the major payers have raised concerns that, where there is a change in licensure as proposed here, they would not necessarily be able to identify the location at which services are rendered if the licensed entity bills for services at multiple sites, making monitoring of any change in facility fees challenging.<sup>205</sup> Finally, the contract terms governing the rates applicable to Partners’ outpatient sites are up for renegotiation in late 2014 and 2015 for the three major payers. Any change to the contract terms allowing services rendered at these facilities to be reimbursed under higher fee schedules, whether achieved through increased bargaining leverage or the exercise of existing bargaining leverage as discussed in Section IV.A.1, would further increase the level of total medical spending in northeastern Massachusetts.

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<sup>200</sup> Professional fees are payments assessed to cover the cost of the health care provider rendering the services.

<sup>201</sup> Facility fees are payments assessed by hospitals to cover their overhead costs, such as medical records, medical equipment, facility upkeep, and salaries of nurses and other staff. Facility fees are routinely included in hospital outpatient department visits, but can also apply to care delivered at off-campus sites—such as a physician’s office or an ambulatory care center—if that site is considered an outpatient clinic that bills through the hospital.

<sup>202</sup> Written Response, *supra* note 11, at 24.

<sup>203</sup> See *supra* note 91 and discussion in Section IV.A.2 regarding the differences in “AMC” versus community “integrated” and “affiliated” rates. Because we do not know the proportion of services that would be rendered by MGH-affiliated physicians, we are unable to estimate an impact on total medical spending. However, we note that the AMC rates are up to 4.2% higher than the community “integrated” rates for the top three commercial payers, and 20-25% higher than Hallmark’s current “affiliated” rates for these payers.

<sup>204</sup> The Written Response does not specify the facility rates that would apply to the MGH-licensed Stoneham Cancer Center, where Partners could potentially seek MGH academic rates. A major payer has confirmed that MGH academic rates currently apply to at least one MGH facility in the community. For one major payer, it appears that Hallmark’s current facility rates at Stoneham are slightly higher than MGH’s community facility rates. Across payers, however, we anticipate that changes in Stoneham facility fees will be cost increasing, as Hallmark’s current facility fees are generally lower than MGH’s community facility fees.

<sup>205</sup> We note that effective payer monitoring of billing practices, including developing the capacity to identify location of service delivery, is critical to ensure that changes in billing practices do not inappropriately increase total medical spending for consumers.

5. At Current Prices, Anticipated Changes in Referral Patterns are Unlikely to Result in Significant Savings; if Partners Seeks Rate Increases for Hallmark, Changes in Referral Patterns will Likely Increase Total Medical Spending.

In addition to changes in rates of reimbursement (unit price), changes in care referral patterns or use of differently priced providers (provider mix) also impact total medical spending. The parties have estimated cost savings of between \$11.8 million and \$24.7 million per year from intended changes in referral patterns (\$1.9 to \$4.7 million for inpatient care and \$9.9 to \$20 million for outpatient care). The parties base this estimate on the assumption that 10% to 25% of inpatient volume and 25% to 50% of outpatient volume from patients living in Hallmark's service area, but who were treated at MGH for given services, would be redirected from MGH to Hallmark as a result of the transaction.<sup>206</sup> This section examines changes in care referral patterns and finds that, contrary to the parties' claims, overall redirection of care to Hallmark following the transaction is much more likely to come from lower-priced competitors than from other Partners providers.<sup>207</sup>

a. *Inpatient Services*

We applied econometric modeling to hospital discharge data to empirically examine the parties' claim that Partners' acquisition of Hallmark will lower spending by leading to a net decrease in inpatient care at MGH, which is redirected back to the community.<sup>208</sup> Focusing on those cases that could feasibly and appropriately be redirected to community hospitals (i.e.,

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<sup>206</sup> Specifically, Partners expects redirection of secondary cases in the following service lines: obstetrics and gynecology, orthopedics, cardiology, oncology, and digestive health. The parties have confirmed that their redirection estimates are goals identified by their clinicians, and do not reflect data from Partners' experience acquiring or establishing community-based provider sites. The parties also plan to direct some lower acuity patients currently seen in the MGH emergency department to new urgent care centers the parties will develop in their joint service area. Though the parties' projected savings from this effort is only a small portion of their estimated care redirection savings, we recognize the potential for urgent care centers to reduce unnecessary emergency department use and to promote delivery of non-emergent care in more cost-effective settings.

<sup>207</sup> This finding is consistent with payer observations that notwithstanding Partners' claims of lowered spending from redirecting care from MGH and BWH to Mass General/North Shore Center for Outpatient Care, the Mass General Cancer Center at Emerson Hospital, and the Vernon Cancer Center at Newton-Wellesley Hospital, they have not seen net reductions in volume at MGH and BWH or shifts in utilization to Partners community sites that resulted in lowered spending.

<sup>208</sup> We used discharge data and a logit share model to study the determinants of the odds that commercially insured patients in individual eastern Massachusetts zip codes, for which the closest hospital is not an AMC, choose to go to their closest hospital, instead of another community hospital, a non-Boston AMC, or a Boston AMC, for their secondary non-emergency room care. The model controls for zip code fixed effects to account for all zip code-specific factors that can affect patient choice, including demographics, distance from hospitals, and access to public transportation. The model also controls for whether the chosen hospital is a Partners hospital and the impact of distance, in drive time, between the patient zip code and the closest hospital, the closest Partners hospital, the closest Boston AMC, and the five closest other community hospitals, on the odds that the patients choose the different types of hospitals, relative to their closest hospital. This econometric model estimates the impact of being a "Partners" hospital on the odds that patients from individual zip codes chose different types of hospitals (e.g., a Boston AMC) relative to their closest hospital. Using these estimates, we analyze whether and from where inpatient care would be redirected to Hallmark if Partners were to acquire Hallmark and operate it like it does its other community hospitals. We also calculated confidence intervals around our predictions.

secondary, non-emergency cases), we measured how often patients receive such care at Partners and non-Partners hospitals, controlling for distance and demographics. This allowed us to measure any differences in the care referral patterns associated with Partners versus non-Partners hospitals (a so-called “Partners effect”).<sup>209</sup>

We found consistent and statistically significant results indicating that changes in referral patterns will be more complex than a one-way redirection of care from Partners AMCs to its community hospitals. Instead of care redirection exclusively from higher-priced Partners AMCs, community hospitals owned by Partners receive volume from lower-priced competitors as well, such as other community hospitals and non-Partners AMCs. Our analysis shows that Hallmark is likely to increase its inpatient volume as a Partners hospital,<sup>210</sup> but that this new volume is more likely to come from net volume reductions at non-Partners hospitals than from any net change in volume at the Partners AMCs.<sup>211</sup> Specifically, our analysis indicates that of the net volume increase at Hallmark, about 60% will likely derive from net volume reductions at non-Partners community hospitals and about 40% from net volume reductions at non-Partners AMCs, with no statistically significant change in net volume of patients using Partners AMCs and community hospitals.

Hospital Category	Where Additional Hallmark Discharges Are Likely to Come From (Net Contribution by Hospital Category)
Partners AMCs	0% <sup>212</sup>
Non-Partners AMCs	41%
Partners Community Hospitals	0% <sup>213</sup>
Non-Partners Community Hospitals	59%

By failing to take into account any volume shifts to Hallmark from non-Partners competitors as a result of this transaction, the parties significantly overstate the potential for savings as a result of changes in site of care. Instead, because of the net volume of care

<sup>209</sup> This model is consistent with the parties’ claims that patient preferences inform care referral patterns and that Partners’ investments in community hospitals, sharing of programs with those institutions, and enhancement of those institutions’ offerings, as Partners has done with its community hospitals, will cause patients to more frequently choose their local hospitals over Partners’ downtown AMCs. By analyzing use patterns around existing Partners community hospitals like Faulkner, Newton-Wellesley, and NSMC, this model takes into account all of the reasons why a patient might receive care at a Partners hospital over a non-Partners hospital or vice versa (e.g., brand, quality, investments, service offerings, physician referrals).

<sup>210</sup> We estimate that Hallmark will receive an additional 500 to 1,400 secondary, non-emergency discharges as a Partners hospital. This model treats the Hallmark hospitals consistent with the parties’ claims that patients who would have received services at Hallmark-LMH will now receive such services at Hallmark-MWH, and thus models a net change to Hallmark as a whole.

<sup>211</sup> This model accounts for the fact that the parties may redirect cases from MGH and other Partners hospitals to Hallmark. However, it indicates that any such redirection is likely to be offset by other changes in site of care (e.g., new volume at MGH from competitors) that would negate any net savings from care redirection.

<sup>212</sup> We found no statistically significant *net* change in volume at Partners hospitals. As noted above, Partners hospitals could redirect care to Hallmark; however, we found that any such redirection is likely to be offset by other changes in site of care (e.g., new volume at MGH from competitors). *See supra* note 211.

<sup>213</sup> *See supra* notes 211 and 212.

anticipated to shift away from lower-priced competitors, we expect that, overall, changes in inpatient site of care are much more likely to be cost neutral. Moreover, if Hallmark's prices increase to those of Partners' owned community hospitals, as discussed in the previous section, overall changes in site of care are anticipated to *increase* spending for the three major payers by approximately \$4 million per year.

In addition to focusing exclusively on redirection from MGH to Hallmark, as opposed to all likely shifts in site of care as a result of this transaction, another questionable assumption underlying the parties' estimates of potential care referral savings is the scope of the population associated with this transaction. The parties posit that this transaction will result in 10% to 25% of all Hallmark service area patients who receive care at MGH being redirected to Hallmark, regardless of whether such patients are seen by Hallmark physicians, the physicians over whom this transaction allows Partners to exercise additional control to effectuate care redirection.<sup>214</sup> Even if we accept the parties' assumption that patients would only shift from MGH to Hallmark, in applying the parties' estimated levels of care redirection to the more realistic population of patients of HHPHO PCPs, we find the scope of potential savings for the three major payers would be on the order of \$280K to \$700K – significantly less than the parties' projections of \$1.9 million to \$4.7 million.<sup>215</sup>

The difference in this range calculated by the HPC and the parties' larger estimates is driven by three principal factors. First, as discussed in the foregoing paragraph, we modeled shifts in inpatient care for a somewhat smaller population – patients of HHPHO physicians, rather than all patients living in Hallmark's service area – as we believe the patients associated with Hallmark physicians are those the parties can most realistically be expected to influence, and it is the Hallmark physicians over whom this transaction allows Partners to exercise additional control. Second, we focused on commercial patients. The parties posit that comparable levels of savings would be achieved for government payer patients. There are several reasons to question this assumption. Just as commercial rates for the Hallmark facilities are anticipated to increase in connection with this transaction, changes in government rates for some of these facilities are anticipated as well, as they are proposed to be licensed under and operated by MGH. Care redirection savings for government payer patients depend on the questionable assumption that government rates for MGH-licensed Hallmark facilities will remain at non-MGH rates. Moreover, even if Hallmark maintains lower government rates, savings for

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<sup>214</sup> In their Written Response, the parties state that Massachusetts General Physicians Organization (MGPO) patients living in the Hallmark service area are the relevant population upon which this transaction is premised, and that the HPC erred in not crediting the parties with savings that could be realized for this population. As described in the HPC Analysis of the Written Response, *supra* note 11, at 14, while we agree that Partners may redirect some of its MGPO patients to Hallmark, it is unclear why the population cared for by MGPO – physicians Partners already employs – is the population upon which this transaction is premised and for which the transaction would change Partners' level of control. Through its existing employment of the MGPO physicians, Partners can implement improved site of care management of this population, especially in light of its longstanding clinical affiliation with Hallmark and the parties' joint participation in risk contracts. We also note that in other contexts, such as the parties' framing of PHM savings tied to this transaction, the parties, consistent with the HPC's approach, focus on the patient population associated with *Hallmark's* physicians as the population and physicians over whom Partners will exercise additional control as a result of this transaction.

<sup>215</sup> Moreover, as discussed in the previous section, if Hallmark's rates were to increase to those of NSMC, the scope of such savings would further decrease to \$184K to \$459K for the three major payers.

government payer patients, like commercially insured patients, will only accrue if the parties achieve a net redirection of care from MGH to Hallmark. We do not have information from the parties, or our own analysis of site of care preferences among commercial patients, to suggest such net redirection is likely. As such, we find that while this topic would benefit from further inquiry, in the absence of evidence from the parties addressing these open questions, we are unable to include specific findings regarding the likelihood or scope of potential savings from redirection of government payer patients.<sup>216</sup>

Third and finally, we gave the parties credit for potential redirection of all inpatient service lines, rather than the subset of service lines focused upon by the parties, which also contributed to the difference in the range calculated by the HPC and the parties' estimates. However, as discussed above, we find that even the smaller range calculated by the HPC would likely not be realized when all shifts in inpatient site of care, including shifts from non-Partners hospitals to Hallmark, are appropriately taken into account.

#### *b. Outpatient Services*

The parties state that this transaction will result in redirection of outpatient services from MGH to Hallmark amounting to approximately \$9.9 million to \$20 million in annual savings. We have concerns about the reliability of this estimate, both because the parties only consider service shifts in one direction (from MGH to Hallmark), and because the parties' similar approach to estimating inpatient savings is not substantiated by empirical analysis of Partners' hospitals and referral practices. While we do not have detailed outpatient data on which to conduct econometric modeling of shifts in outpatient care, if patients exhibit similar preferences for hospitals for outpatient care as they do for inpatient care, we found that any savings from net changes in outpatient site of care would be modest.

The parties' estimate of outpatient savings is also questionable in light of HHPHO's current care referral patterns compared to those of the Newton-Wellesley and North Shore physicians. We reviewed site of care data from the three largest commercial payers to examine the care referral patterns associated with HHPHO, Newton-Wellesley, and North Shore physicians. We examined how often HHPHO patients receive outpatient care at Hallmark hospitals versus other area hospitals and how often they receive care at BWH and MGH versus the other general acute care AMCs in Boston (Beth Israel Deaconess Medical Center, Boston Medical Center, and Tufts MC). For Newton-Wellesley and NSMC patients, we examined how often they use Newton-Wellesley Hospital and NSMC versus other area hospitals, and how often they use BWH and MGH versus competitor AMCs.

We found that HHPHO's existing care referral patterns look very similar to those of the PCHI physicians at Newton-Wellesley and NSMC. Indeed, these data show that HHPHO

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<sup>216</sup> We also note that while savings for government payer patients could reduce the burden of health care spending for state and federal government, such savings would not be passed along to employers and consumers in the same manner as savings for commercially insured patients. *See also* HPC Analysis of the Written Response, *supra* note 11, at 15, note 49.

patients use Hallmark hospitals for outpatient care more frequently than the patients of Newton-Wellesley and North Shore physicians use Newton-Wellesley Hospital and NSMC. These data also show that HHPHO patients use the Partners AMCs no more frequently than Newton-Wellesley and NSMC patients. The fact that HHPHO physicians already refer to their “home” hospital more frequently than other Partners physicians refer to their “home” hospitals, and refer to Partners AMCs no more frequently than the physicians at Newton-Wellesley and North Shore, calls into question the parties claim that a substantial net shift in site of care from Partners AMCs to Hallmark is likely to occur as a result of this transaction.

As with inpatient services, we also modeled the parties’ claim that 25% to 50% of MGH’s outpatient volume from the Hallmark service area would shift to Hallmark, but that no other care delivery patterns would change (i.e., the parties would not experience any shifts in care vis-à-vis non-Partners hospitals). As with inpatient services, we applied the parties’ assumptions to a more realistic population, the patients of Hallmark PCPs, since those are the patients the parties are most likely able to impact, and it is the Hallmark physicians over whom this transaction allows Partners to exercise additional control. We found that if the parties redirected 25% to 50% of outpatient care for this population from MGH to Hallmark, the savings for the three major payers would be on the order of \$900K to \$1.8 million.<sup>217</sup> If, as discussed in the previous section, Hallmark’s rates were to increase to those of NSMC, potential savings would decrease to \$870K to \$1.7 million.

Finally, a significant proportion of the savings claimed by the parties is based on redirection of outpatient oncology services (\$7.4 million to \$14.9 million per year). If, as discussed in Section IV.A.4 above, the parties bill the services of the Stoneham Cancer Center at increased facility prices, or if a significant proportion of these services are provided by MGH physicians at higher academic physician rates, even a substantial redirection of outpatient cancer care to the community would not necessarily result in significant cost savings.<sup>218</sup>

*c. New Physicians the Parties Seek to Recruit*

As discussed in Section II.C, the proposed transaction includes plans to recruit 17 replacement and 25 net new physicians to Hallmark to support PHM. Consistent with information provided by the parties, we expect that a number of patients currently receiving care from other local providers will become patients of these new PCHI/Hallmark PCPs. We also expect the care referral patterns of these PCHI/Hallmark PCPs to be in line with current PCHI/Hallmark practices (higher use of Hallmark and Partners hospitals).

The table below shows, for one major payer, the average price of hospital services for patients of HHPHO compared to the patients of other large physician groups serving the

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<sup>217</sup> See *supra* Section IV.A.5.a regarding the reasons why this HPC estimate differs from the parties’ estimate.

<sup>218</sup> Whether there will be net changes in site of cancer care that drive overall savings also depends on whether Partners intends a net reduction of cancer volume and capacity at MGH, or if freed capacity from redirection of care to Hallmark is likely to be filled with patients from lower-priced competitors. The probability that the Partners system will not experience a net reduction in volume vis-à-vis competitors is consistent with our modeling of inpatient site of care patterns, as well as the observations of some payers as referenced in note 207, *supra*.

northeastern Massachusetts region.<sup>219</sup> The table shows how the prices for hospital services vary significantly based on the system with which the patient’s PCP is affiliated. Among these groups, HHPHO doctors refer their patients to one of the most expensive mixes of hospitals for inpatient and outpatient care.

**Hospital Referral Prices for Area Physician Groups (One Major Commercial Payer)**

	Group 1	Group 2	Group 3	Group 4	Group 5	Hallmark	North Shore
<b>Average Price of IP Referral Hospitals</b>	1.094	1.095	1.096	1.173	1.200	<b>1.181</b>	<b>1.191</b>
<b>Average Price of OP Referral Hospitals</b>	1.048	0.913	1.006	1.067	1.093	<b>1.086</b>	<b>1.160</b>

If the patients cared for by the parties’ newly recruited PCPs come from area physician groups, listed above, then a shift in their care to use of HHPHO’s generally higher priced mix of providers will increase total medical spending.<sup>220</sup> For patients associated with 25 new PCPs, the three largest payers would pay an additional approximately \$1.3M dollars each year. If Hallmark’s prices increased to the level of NSMC’s, and the new physicians adopted referral patterns more in line with those of North Shore physicians (i.e., the new physicians referred to a mix of hospitals priced as shown in the “North Shore” column in the chart above), the three largest payers would pay an additional \$3.8M dollars each year. Given that Partners has stated they will recruit these PCPs over several years, the cost impact of this anticipated shift in provider mix will be experienced over time.

**6. While the Parties’ PHM Strategies Have the Potential to Reduce Unnecessary Utilization and Wasteful Spending, the Parties Have Not Demonstrated That These Potential Savings Are Likely to Offset the Spending Increases from this Transaction.**

In advance of the Preliminary Report, in response to the HPC’s requests for information on the anticipated impact of the parties’ proposed PHM initiatives, the parties provided information on several initiatives intended to “improve the availability and accessibility of care, enhance community-based clinical offerings, and yield economic and operational efficiencies.”<sup>221</sup> These included:

<sup>219</sup> We excluded other PCHI groups for this analysis as it appears unlikely that Partners would consider recruitment of other PCHI PCPs as “net new” physician recruitment.

<sup>220</sup> Note, however, that Group 5 in this chart currently refers to a higher priced mix of hospitals than Hallmark. Shifts in care referral patterns for the patients of this group to the care referral patterns of Hallmark physicians would be anticipated to decrease total medical spending. Our projected dollar impact to total medical spending due to shifts in care referral patterns takes into account anticipated shifts both from groups with a lower priced mix of referral hospitals and from groups with a higher priced mix of referral hospitals.

<sup>221</sup> See Affiliation Agreement, *supra* note 8, at Art. 1.

- The enhancement, reconfiguration, and expansion of PCP services contemplated in the parties' PCP Initiative;<sup>222</sup>
- Directing appropriate patient care to urgent care centers as opposed to hospital emergency departments, and expanding urgent care availability at Hallmark-LMH, in Reading, and in the Burlington/Lexington area;
- Expanding the use of remote care services, including telehealth tools, virtual visits, and patient portals, as alternatives to office or hospital visits; and
- Expanding outpatient availability of preventive health programs and support for patients with a variety of chronic conditions, centered at the reorganized LMH campus.<sup>223</sup>

The parties projected that, taken together, these strategies would decrease inpatient utilization, resulting in average gross savings of about \$10.9 million per year over five years (the parties' original estimate).

In their Written Response, the parties re-framed some of these initiatives and described additional programs being developed by Partners, including:

- Expansion of Partners' Integrated Care Management Program (iCMP) to better manage the care of high-cost, high-risk patients;
- The integration of behavioral health care supports into primary care practices;
- Protocols for specialists to more effectively manage patient referrals and identify patients who can be managed outside of an in-person visit;
- Expansion of the use of software to guide clinical decision-making and allow patients to report on care outcomes;
- Efforts to improve the quality of care at skilled nursing facilities and reduce the lengths of stay for patients;
- The use of mobile observation clinical teams to provide home observation in lieu of hospital observation; and
- Improved patient education and engagement in shared decision-making.<sup>224</sup>

The parties project that, taken together, their strategies will decrease utilization of inpatient admissions, emergency visits, observations, post-acute care, specialty care, radiology and laboratory tests, and primary care office visits, resulting in average annual savings of \$21 million over five years (the parties' revised estimate).<sup>225</sup>

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<sup>222</sup> See *id.* at Exh. 4.4.1-B.

<sup>223</sup> See *id.* at Exh. 4.4.1-A, § 2(a).

<sup>224</sup> See Written Response, *supra* note 11, at Appendix B

<sup>225</sup> In response to the HPC's detailed requests for the parties' projections of the transaction's impact on health care costs, the parties provided their original estimate of PHM savings and a model used to calculate this estimate. Notwithstanding the HPC's direct requests for this information and the parties' obligation to update the HPC with new relevant information in the course of the HPC's review, the parties did not provide their new estimate of PHM savings until their Written Response. We note that the ability of the HPC and the public to evaluate proposed transactions depends upon the accuracy of information presented by providers, and that providers have an obligation to update responses to HPC information requests as new relevant information becomes available.

The HPC is committed to advancing the benefits of care delivery transformation in the Commonwealth, and recognizes the potential for PHM to drive efficiencies and facilitate higher-quality health care. One way we are committed to advancing this transformative potential is by requiring that providers proposing to undertake significant changes provide measurable indicators of how those changes are likely to result in improved performance. Successful care delivery improvement initiatives, including those implemented by Partners in the past, have been based on data-driven interventions targeting well-defined populations.<sup>226</sup> While the parties have provided some additional information about their proposed PHM approaches in connection with this transaction, their estimates of cost savings based on their care delivery reform initiatives are not adequately substantiated. We note two key information gaps that undermine the parties' projections:

- Novel care delivery models are most likely to be successful where such programs are based on concrete implementation plans that include measurable goals and other evidence-based benchmarks. Here, the parties' program descriptions are overly general and lack the basic implementation and measurement plans that would support projections of success.
- Projected savings should also be based on reasonable assumptions. For their original estimate, the parties relied on a number of questionable assumptions in projecting savings; by adjusting these assumptions using more relevant data, we found a smaller scale of potential savings. For their revised estimate, the parties omit their underlying calculations, precluding us from assessing the reasonableness of their projection.
  - a. *Novel care delivery models are most likely to be successful where such programs are based on concrete implementation plans that include measurable goals and other evidence-based benchmarks. Here, the parties' program descriptions are overly general and lack the implementation and measurement plans that would support projections of success.*

As outlined above, the parties have identified several potential PHM strategies they plan to implement. The parties have provided some details about these plans: they identify the number of doctors they plan to recruit through the PCP Initiative, as well as those communities in which these doctors would practice.<sup>227</sup> They identify some of the diseases on which they would focus,<sup>228</sup> and also identify several PHM programs that have been piloted by Partners.<sup>229</sup>

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<sup>226</sup> See, e.g., Douglas McCarthy et al., COMMONWEALTH FUND, GEISINGER HEALTH SYSTEM: ACHIEVING THE POTENTIAL OF SYSTEM INTEGRATION THROUGH INNOVATION, LEADERSHIP, MEASUREMENT, AND INCENTIVES, 9 (2009), available at

[http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2009/Jun/McCarthy\\_Geisinger\\_case\\_study\\_624\\_update.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2009/Jun/McCarthy_Geisinger_case_study_624_update.pdf) (discussing the successful care model redesign process at Geisinger Health System as being based on identifying best practices, setting specific targets for improvement, defining methods to measure and support progress, and proving new models in smaller pilot populations before expanding them).

<sup>227</sup> See Affiliation Agreement, *supra* note 8, at Exh. 4.4.1-B.

<sup>228</sup> E.g. the focus of the iCMP program on high risk patients and patients with specific conditions; the initial focus of mental health primary care support on patients with anxiety, depression, and substance use disorders; and the use of mobile observation units to provide follow up care to cellulitis patients. Written Response, *supra* note 11, at B-1, B-2, B-6.

However, the parties' descriptions of their PHM programs lack basic implementation information, such as the parties' methods for identifying populations for care management, an assessment of the number of patients expected to participate in a given program, the clinical outcomes that would result in savings, methods to measure progress, the timeframe for deployment in Hallmark's service area, and the expected costs of implementation. These are basic components of any care delivery reform initiative. The parties indicate that "the lack of granular detail regarding Partners' PHM programs for the Transaction is not indicative of any lesser commitment to this important care delivery initiative. It is rather a matter of timing and, in fact, a reflection of Partners' approach of investing due time for careful planning and thoughtful preparation of an implementation plan."<sup>230</sup> We agree that careful planning is necessary, and that modifying new care delivery models as they progress is often advisable. However, when a provider projects substantial savings from a PHM program before developing an implementation strategy, we are unable to validate the reasonableness of the projection.<sup>231</sup>

*b. Projected savings should also be based on reasonable assumptions. For their original estimate, the parties relied on a number of questionable assumptions; by adjusting these assumptions using more relevant data, we found a smaller scale of potential savings. For their revised estimate, the parties omit their underlying calculations, precluding us from assessing the reasonableness of their projection.*

We attempted to verify the parties' original estimate and revised estimate of savings by comparing the assumptions underlying the estimates to the best available data. Both estimates contain flaws in their underlying assumptions which make them unreliable.

i. The original estimate

The parties calculated their original estimate based on estimates of the population they expected the PHM initiatives to serve in the aggregate, the reduction in inpatient admissions they expected to achieve, the amount they expected each avoided admission would have cost, and the

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<sup>229</sup> The parties indicate that the programs discussed in their Written Response are ones "Partners is implementing throughout its system." It is unclear to what extent Hallmark already participates in these programs as part of PCHI, and most of the program descriptions do not discuss how they would be extended into Hallmark's service area. Written Response, *supra* note 11, at B-1.

<sup>230</sup> *Id.* at 19.

<sup>231</sup> The parties state generally that their programs, and their estimated savings, are based on Partners pilot projects or on published research referenced in Appendix C of the parties' Written Response. They have not provided any supporting information for this statement, such as descriptions of the designs of those pilots and how they relate to the parties' proposed programs, that would allow the HPC to assess whether and to what extent those pilots support the design of the proposed initiatives and the parties' savings estimates. Likewise, the studies the parties cite that include cost estimates describe very specific patient populations, implementation infrastructures, and care management strategies. See e.g. Benjamin G. Druss, et al., *Budget Impact and Sustainability of Medical Care Management for Persons with Serious Mental Illnesses*, 168 AM. J. PSYCHIATRY 1171, 1172 (2011) (management of 205 patients with serious persistent mental illnesses by two nurse practitioners with caseloads of approximately 75 patients each, using motivational interviewing and action plans designed to assist with lifestyle changes and access to primary care). The information gap between the detailed cited studies and the parties' high-level description of their own proposals is illustrative of the challenges in validating the parties' savings projections.

amount they expected to spend on implementing and maintaining the programs.<sup>232</sup> However, as discussed in detail in the Preliminary Report, several of the assumptions underlying the parties' projections raised methodological concerns. These questionable assumptions included the size of the commercial and Medicare populations that Hallmark would serve in its service area, the assumption that the rate of inpatient admissions for Medicare beneficiaries in Hallmark's service area is the same as the national rate, and the assumption that program savings will always exceed program costs.<sup>233</sup>

Using the parties' estimates as a baseline, we adjusted the foregoing assumptions to reflect the best available data. For assumptions where supporting data were unavailable, such as the potential rate of admissions reduction, we retained the parties' assumptions. With these limited adjustments, we estimated a potential for gross annual savings of up to \$5.4 million. While we were unable to correct for all of the methodological concerns we identified in the parties' original projection, we found that savings from the PHM proposals were likely no more than half of the original estimate, and were unlikely to outweigh the anticipated costs of the transaction.<sup>234</sup>

ii. The revised estimate

The parties' revised estimate is approximately double their original estimate, and represents a step forward in that it contains program-specific savings amounts (the parties' "modeled annual savings" for each program).<sup>235</sup> The parties state their new estimate was calculated by applying certain per member per month (PMPM) savings for each of their PHM programs to the Hallmark population, and then totaling these savings to arrive at the revised estimate of \$21 million in average annual savings.<sup>236</sup> The parties' revised figure omits several critical components:

- The parties do not provide estimates of the patient population that will participate in each program.<sup>237</sup> Without estimates of the relevant population, we cannot assess whether the

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<sup>232</sup> Although the parties' initial estimate provided these projections as lump sums, it did provide separate projections for reductions in admissions and costs for Hallmark's commercial and Medicare populations.

<sup>233</sup> For further discussion of these assumptions, see PRELIMINARY REPORT, *supra* note 164, at Section IV.A.6.b.

<sup>234</sup> *Id.* at Section IV.A.6.b. This scope of likely savings was supported by a review of the results of relevant pilot projects. *See id.* at Section IV.A.6.c.

<sup>235</sup> Written Response, *supra* note 11, at 21-22.

<sup>236</sup> *Id.* at 20.

<sup>237</sup> Although the parties claim their PMPM savings estimates were "applied to the primary care lives managed by [Hallmark,]" most of the programs the parties describe would focus on subsets of Hallmark's general population, including high-cost patients (iCMP), patients at the end of their lives (palliative care), patients with specific chronic conditions (heart failure, diabetes, and hypertension monitoring), and patients with behavioral health conditions. *See Id.* at 20, 22-23, Appendix B. In addition, several of these programs are likely to overlap and serve the same patients; it is unclear whether the parties' savings estimates account for this possibility, and some of the program savings may be double-counted as a result.

parties' expectations about participation in their programs are reasonable given the characteristics of Hallmark's patient population.<sup>238</sup>

- The parties do not include per-program PMPM savings amounts, instead grouping programs together with average PMPM figures.<sup>239</sup> The programs the parties have grouped together differ significantly (e.g. palliative care and mental health integration), making it unrealistic to assume that each program in a group would have the same PMPM savings. Without program-specific PMPM estimates, we cannot assess whether the parties' expectations about the cost savings they will achieve are reasonable.<sup>240</sup>
- It is unclear whether the revised estimate accounts for the costs of implementing and maintaining each program. Without program cost estimates, we cannot assess to what extent those costs will impact the programs' net savings.

Without these components, we are unable to assess whether the parties' stated savings are reasonable.<sup>241</sup> While some of the proposed PHM initiatives may generate savings, the parties have not demonstrated the likelihood that such savings will offset spending increases from this transaction.

In sum, we recognize the potential for PHM initiatives to drive efficiencies and facilitate higher-quality health care, and we commend the parties for affirming this shared priority. We similarly recognize that novel care delivery models such as those proposed here must include measurable goals and other evidence-based benchmarks specific to each intervention, to maximize the likelihood that significant investments in these models will result in improved performance. Here, the parties have not provided key supporting information that would allow for assessment of the reasonableness or reliability of their stated savings figure. Accordingly, we

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<sup>238</sup> If the parties estimated their savings based on pilot programs, it is not clear whether they have accounted for differences between the health and demographic characteristics of the pilot populations and the populations they expect to serve in Hallmark's service area.

<sup>239</sup> Because the parties do not provide population estimates, we cannot "back out" PMPM savings for each program by dividing the parties' estimated total annual program savings by the populations they expect to serve.

<sup>240</sup> If the parties had provided PMPM savings estimates for each program, we would compare the parties' savings projections to the savings achieved in recent successful care delivery initiatives, either piloted by the parties or documented in published literature. The articles documenting PHM cost savings that the parties cite in support of their PHM programs universally evaluate savings on a per-patient basis. See David Arterburn, et al. *Introducing Decision Aids at Group Health Was Linked to Sharply Lower Hip and Knee Surgery Rates and Costs*, 31 HEALTH AFFAIRS 2094, 2099 (2012) (discussing average cost of care per patient over one year); Richard Brumley, al. *Increased Satisfaction with Care and Lower Costs: Results of a Randomized Trial of In-Home Palliative Care*, 55 J. AM. GERIATRIC SOC. 993, 998 (2007) (discussing total costs per patient and costs per patient per day); Benjamin G. Druss, et al., *Budget Impact and Sustainability of Medical Care Management for Persons with Serious Mental Illnesses*, 168 AM. J. PSYCHIATRY 1171, 1175 (2011) (discussing per patient per year cost savings); David Wennenberg, et al., *A Randomized Trial of a Telephone Care-Management Strategy*, 363 NEW ENGL. J. MED. 1245 (2010) (discussing per member per month savings and program costs).

<sup>241</sup> The HPC has been able to estimate a population and associated savings for one potential PHM model in Hallmark's service area. As discussed in the Preliminary Report, if we assume that Hallmark's Medicare population is similar to that of MGH, and that Hallmark could achieve the level of success associated with the most successful MGH pilot population in the Care Management for High Cost Beneficiaries Demonstration, extending a similar program to Hallmark's population could result in annual savings of up to \$4.4 million. Alternately, if Hallmark's performance were similar to that of NSMC in the same pilot project, costs could increase by up to \$1.1 million per year. PRELIMINARY REPORT, *supra* note 164, at Section IV.A.6.c.

find that the parties have failed to demonstrate the likelihood that savings from their proposed PHM initiatives will offset spending increases from this transaction. The proposed initiatives may provide value to the public in terms of their potential to improve quality of and access to care, irrespective of their savings potential, as addressed in Sections IV.B and C below. The public must assess whether such potential benefits of this transaction are sufficiently significant and concrete to outweigh the substantial negative cost and market impacts documented earlier in this report.

7. The Proposed Consolidations May Yield Operating Efficiencies for the Parties, but the Scope of Potential Efficiencies is Uncertain and Is Likely Outweighed by the Parties' Proposed Investments.

As detailed in Section II, the parties expect to consolidate services provided by Hallmark and NSMC. In this section, we assess the parties' anticipated operating efficiencies and investments:

- The parties claim that consolidation of certain business administrative activities will result in annual overhead savings of \$1 - \$2 million.
- The parties claim that conversion of Hallmark-LMH to a short-stay facility and NSMC-Union into a behavioral health and primary care center will result in annual overhead savings totaling about \$24 to \$28 million.
- The parties have proposed approximately \$595 million in investments in their facilities, technology, and programs pursuant to the proposed transaction.

*a. Administrative efficiencies*

The parties have provided the HPC with an assessment of administrative and business efficiencies they expect to realize as a result of the transaction. These include reductions in duplicative administrative staff, as well as joint contracting and purchasing efficiencies. While the HPC cannot substantiate the exact amount of savings, the details provided suggest the parties could reasonably meet their estimate of reducing operating expenses by about \$1 – \$2 million per year.

*b. Conversion of Hallmark-LMH and NSMC-Union*

The parties have provided the HPC with projections of operating costs and avoidable expenses associated with the proposed conversions of Hallmark-LMH and NSMC-Union. The parties project that converting Hallmark-LMH into a short stay facility will reduce overhead expenses by about \$11 - \$15 million annually, and converting NSMC-Salem into a center for behavioral health and primary care will reduce overhead expenses by approximately \$13 million annually. While the parties have not provided detailed information to support these projections (and the figures may be overstated<sup>242</sup>), it is generally reasonable that the parties would realize some efficiencies by consolidating their hospital capacity.

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<sup>242</sup> For instance, it is not clear whether the parties' projections account for the operating costs of new facilities and services at the campuses. As one example, the parties contemplate building a new medical office building and

The projected operating efficiencies discussed in this section would not have a direct impact on total medical spending in northeastern Massachusetts since they would accrue directly to the parties. The same is true of the costs of the investments contemplated as part of the transaction.<sup>243</sup> The parties state that it may be possible to forego future rate increases as a result of the projected efficiencies; however, their proposed capital spending is approximately twenty times larger than the efficiencies.<sup>244</sup> Some payers have also observed that any operating efficiencies achieved by Partners in the past have not translated into lower rate increases as compared to other providers. We therefore do not attribute an impact to total medical spending from either these projected efficiencies or the proposed investments.

In sum, we found that this transaction will reinforce Partners' position as the provider with the highest share of inpatient and PCP services in its northeastern Massachusetts service areas, and will strengthen the resulting system's ability and incentives to negotiate price increases and other favorable contract terms for Hallmark. As the Hallmark physicians become more tightly integrated with Partners, anticipated changes in physician prices will increase total medical spending in northeastern Massachusetts by about \$6.8 million for the three largest commercial payers. If Partners seeks parity between Hallmark's rates and those at its other greater Boston community hospitals, these changes in hospital rates will increase total medical spending in northeastern Massachusetts by an additional \$9.3 million for these payers. Facility price changes and staffing by MGH physicians at the facilities proposed to be licensed under MGH are likely to further increase total medical spending in northeastern Massachusetts, with changes in site of care anticipated to be cost neutral or cost increasing rather than cost saving (up to \$4 million in increased spending for existing patients, and up to \$3.8 million in increased spending for anticipated new patients). Such cost and market impacts are anticipated notwithstanding the proposed settlement. While the parties have outlined a set of PHM initiatives that have the potential to reduce total medical spending, they have failed to demonstrate that these potential savings are likely to offset the increased spending from this transaction documented earlier in this report.

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garage at Hallmark LMH, and expect to spend \$30 - \$40 million on refitting NSMC-Union to become a behavioral health and primary care center. Affiliation Agreement, *supra* note 8, at Exh. 4.4.3.

<sup>243</sup> See *id.* at Exh. 4.4.1-A, Exh. 4.4.3 (\$370 million for the PCP Initiative, the IT Initiative, improvements at Hallmark's facilities, and investments in the MGH Cancer Center, plus \$30 - \$40 million to convert NSMC-Union and \$190 million to renovate and expand NSMC-Salem).

<sup>244</sup> The parties claim that the amount of investment contemplated in the transaction is only a small amount more than what the parties would spend independently to maintain their existing campuses absent the transaction. *Id.* at Exh. 4.4.1-A, p. 2. They claim that certain improvements, including new Health Information Technology (HIT) systems, would still be necessary, and would cost as much or significantly more for Hallmark to implement independently. While some improvements at Hallmark would still be necessary absent the transaction, the HPC cannot verify whether Hallmark's independent investments would be similar to those proposed in the transaction. However, even assuming that Hallmark would make independent investments similar to those contemplated, Partners has not indicated that it would reorganize the NSMC campuses absent the transaction. The projected cost of reorganization and rationalization of services at these facilities is \$220 - \$230 million. See *supra*, note 243. This figure is significant, and far exceeds the parties' projected overhead efficiencies. See also HPC Analysis of the Written Response, *supra* note 11, at 24, note 89.

## B. QUALITY IMPACT

The parties have stated that the proposed transaction will improve the quality of patient care and that one of their goals is enhancing opportunities for jointly monitoring and improving care quality.<sup>245</sup> They describe that they intend to “determine how best to assist each other in implementing systems for measuring and improving the quality and value of health care services to be delivered by the parties in their reconfigured inpatient, outpatient and community settings.”<sup>246</sup> We examined whether the parties’ historic performance on quality measures suggests areas in which one party has knowledge and experience that could drive improvements by the other, and the parties’ plans to facilitate this exchange of best practices.<sup>247</sup>

As discussed in Section III.B.1, differences in the parties’ performance across quality measures indicate there should be opportunities for Hallmark to improve its quality through the adoption of some Partners quality monitoring and improvement approaches. The parties have outlined some plans that should facilitate this process. For example, the Rationalization Initiative includes plans for MGH and Hallmark to form joint teams that will manage and collaborate on certain service lines at the reorganized Hallmark and NSMC facilities.<sup>248</sup> This includes clinical integration of behavioral health services at MGH with those at the reorganized NSMC-Union facility, which has the potential to increase the quality of those services. While the parties have not specified how this joint management structure will result in quality improvement, it is reasonable to expect it will facilitate the sharing of quality-improving best practices, particularly in areas in which Partners excels. As noted in Section III.B.1.b, Partners hospitals have a strong record of providing post-discharge care planning for psychiatric inpatients, and it would be reasonable to expect the parties to promote similar practices at the reorganized hospitals.

The parties have also described PHM initiatives they intend to deploy to serve residents in their joint service areas in northeastern Massachusetts. As discussed in Section IV.A.6, these plans are founded on increasing primary care availability through the PCP Initiative, integrating behavioral health services into primary care sites, expanding urgent care centers, providing more remote care services, and developing outpatient services tailored to patients with specific chronic conditions.<sup>249</sup> Although the parties did not provide specific quality goals for these initiatives, we recognize the potential for PHM initiatives to facilitate high quality care delivery and commend the parties for pursuing these approaches.

At the same time, the potential positive quality impact of the transaction is colored by the fact that Hallmark has a longstanding clinical and contracting relationship with Partners.

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<sup>245</sup> PARTNERS HEALTHCARE SYSTEM, NOTICE OF MATERIAL CHANGE TO THE HEALTH POLICY COMM’N (Nov. 8, 2013), AS REQUIRED UNDER MASS. GEN. LAWS ch. 6D, § 13 (2012).

<sup>246</sup> Affiliation Agreement, *supra* note 8, at Section 4.6.3.

<sup>247</sup> Pre-merger clinical superiority of one party may indicate the likelihood of a quality impact on the other, though differences in quality by themselves do not guarantee a transaction will result in quality improvements. *See Romano & Balan, supra* note 98.

<sup>248</sup> *See* Affiliation Agreement, *supra* note 8, at Exh. 4.4.1-A. These service lines include obstetrics/gynecology, pediatrics, orthopedics, cardiology, oncology, digestive health, and psychiatry.

<sup>249</sup> *See id.* at Art. 1, Exh. 4.4.1-A, and Exh. 4.4.1-B and Written Response, *supra* note 11, at Appendix B.

Through this relationship, Hallmark has been part of Partners' internal quality tracking programs, pay for performance incentives, and joint risk contracts. Consistent with models in use in other systems, we would expect such programs to have encouraged the sharing of quality and efficiency practices to the mutual benefit of both parties.<sup>250</sup> It is unclear how corporate ownership is instrumental to improving clinical quality in ways the parties' longstanding affiliation has not,<sup>251</sup> or that implementation of care delivery reforms necessarily requires ownership of Hallmark.<sup>252</sup>

### C. ACCESS IMPACT

As Partners and Hallmark seek to rationalize and improve care delivery structures and direct resources to community-based facilities, there is significant potential to improve patient access to and engagement with the health care system. The parties have stated that the changes underlying the Program and Facilities Rationalization and Primary Care Initiatives, described in detail in Section II.C, and their expansion of PHM initiatives as discussed in Section IV.A.6 will improve access to primary care and other health care services across the regions served by Hallmark and NSMC. In Massachusetts and elsewhere, system reconfigurations such as those contemplated in this transaction may allow community hospitals to better meet the challenges of the evolving health care system. The parties' plan to shift appropriate care from emergency departments to urgent care centers, for example, has the potential to reduce unnecessary emergency department use and to ensure that non-emergent care is delivered in a more appropriate setting.<sup>253</sup>

The structure of any transaction that aims to transform care delivery should reflect consideration of the scope and mix of services currently available, the allocation of resources necessary to support both existing and new proposed services, and the alignment of services with

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<sup>250</sup> There are a number of provider models in the Commonwealth that successfully coordinate care delivery and improve quality without corporate ownership. See PHS-SSH-HARBOR FINAL CMIR REPORT, *supra* note 28, at Section IV.B.2.b. As an example of an approach that does not require corporate integration, Hallmark's joint risk contracting arrangement with Partners means that Hallmark's quality and efficiency performance impact the payments that Partners receives. We expect this would incentivize Partners to work with Hallmark to improve its quality and efficiency even absent the transaction.

<sup>251</sup> The parties have suggested that the proposed IT Initiative may improve quality, and that these investments would be impossible without corporate integration. However, the implementation of HIT can facilitate as well as raise challenges for care coordination and health care competition. HIT tools that facilitate interoperability, both within a provider organization and between different provider organizations, can enhance coordinated, effective care delivery. Tools that lack interoperability can create silos, with challenges both for care coordination and access to competitors. See Katherine Baicker & Helen Levy, *Coordination versus Competition in Health Care Reform*, 369 NEW ENGL. J. MED. 789 (2013), available at <http://www.nejm.org/doi/pdf/10.1056/NEJMp1306268>. The Epic IT system used by Partners may be highly interoperable within the Partners system, but it may also create barriers for patients and providers outside of the Partners system who rely on different HIT platforms.

<sup>252</sup> For example, as described in Section III.C.2, NSMC had the lowest occupancy rate (59%) of area community hospitals, suggesting that Partners could elect to reduce its capacity to achieve rationalization in the absence of an acquisition of Hallmark. While we understand that the specifics of a given plan for care rationalization may differ depending on whether a corporate acquisition versus other form of affiliation is contemplated, it is worth asking whether the quality and access gains desired are only or best achievable through this most permanent form of corporate change.

<sup>253</sup> See *supra* note 206.

community need. Significant shifts in the location and types of services provided, as proposed here, can raise access concerns, particularly for vulnerable populations. As discussed in Section III.C.3, Hallmark and NSMC hospitals have higher government payer mix than other area community hospitals and provide a significant share of behavioral health services to their local communities; it is important to consider any adverse impact to these vulnerable populations.

We evaluated the parties' plans to improve access to certain services, as well as their potential impact on the vulnerable populations that Hallmark and NSMC serve, and found:

- The parties have proposed significant changes in service offerings that have the general potential to improve access to care in northeastern Massachusetts. The extent to which the parties realize such potential will be driven by key implementation decisions and firm commitments that the parties have not yet made.
- Relocating inpatient behavioral health services may have an adverse impact on access to those services for vulnerable populations; the parties have not shared plans to mitigate such impact; and
- Relocating inpatient general acute care services is unlikely to impair regional access to these services.

1. The Parties Have Proposed Significant Changes in Service Offerings that Have the General Potential to Improve Access to Care in Northeastern Massachusetts. The Extent to Which the Parties Realize Such Potential Will Be Driven by Key Implementation Decisions and Firm Commitments that the Parties Have Not Yet Made.

The parties' plans include reconfiguration of a range of inpatient and outpatient service lines. Among other plans, the parties propose to “expan[d] and enhance[] all inpatient and outpatient behavioral health,” develop population health programs for chronic conditions, expand urgent care facilities, recruit 25 net new primary care physicians around Hallmark, and enhance access to primary care services by expanding remote care services.

These plans have significant potential to improve access to services. In particular, we commend Partners for its longstanding commitment to behavioral health care, and for raising the importance of expanding behavioral health services.<sup>254</sup> To the extent the parties realize their goal of expanding and enhancing such services, this change could meaningfully impact access to behavioral health services in northeastern Massachusetts. Expanding primary care capacity also has meaningful potential to improve care coordination,<sup>255</sup> with remote care services and expanded urgent care facilities shown in some instances to improve care delivery and the

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<sup>254</sup> See, e.g., Liz Kowalczyk, *MGH to Screen All Patients for Substance Abuse*, BOSTON GLOBE, (June 30, 2014), available at <http://www.bostonglobe.com/lifestyle/health-wellness/2014/06/29/mass-general-hospital-plans-screen-all-patients-for-alcohol-and-illegal-drug-use/RmDqYAUUpFuQql1e1LLicKI/story.html> (reporting on Partners investments in screening all patients at MGH for substance use disorders as part of a suite of activities to enhance access to addiction treatment).

<sup>255</sup> Thomas Bodenheimer & Hoangmai Pham, *Primary Care: Current Problems and Proposed Solutions*, 29 HEALTH AFFAIRS 799 (2010), available at <http://content.healthaffairs.org/content/29/5/799.full>.

likelihood of patients receiving appropriate, timely care.<sup>256</sup> Primary care delivery for certain populations has also been positively impacted by medical home models for physician group practices, and by PHM programs similar to the diabetes and heart failure programs described by the parties.<sup>257</sup> Finally, integrating primary care and behavioral health services has been shown to improve care delivery and similarly has the potential to improve access to care for vulnerable patients.<sup>258</sup>

At the same time, the extent to which the parties can realize such potential will be driven by key implementation decisions, many of which were not available for the HPC's review. For example, the parties have not specified whether they will recruit the 25 net new primary care physicians from existing practices; recruiting these physicians from other area medical groups will not improve overall patient access. Likewise, many differing medical home models and behavioral health-primary care integration approaches exist, and the effectiveness of these models varies. The risk of potential access concerns also turns on details of implementation which are not yet known. Accordingly, the Preliminary Report highlighted a number of critical open questions regarding the parties' plans, and invited the parties to respond with specific information and firm commitments that would help the HPC better assess how their proposed care delivery changes would impact access.<sup>259</sup> Understanding that the parties have not yet made a number of decisions necessary to implement their plans, we also invited them to make specific

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<sup>256</sup> Alan Snell, *The Role of Remote Care Management in Population Health*, HEALTH AFFAIRS BLOG (Apr. 4, 2014), <http://healthaffairs.org/blog/2014/04/04/the-role-of-remote-care-management-in-population-health/>.

<sup>257</sup> While evidence is mixed, one review found a moderate positive effect on delivery of preventive care services, among other findings. George Jackson et al., *The Patient-Centered Medical Home: A Systematic Review*, 158 ANNALS OF INTERNAL MED. 169 (Nov. 2012), available at [http://annals.org/article.aspx?doi=10.7326/0003-4819-158-3-201302050-00579&an\\_fo\\_ed](http://annals.org/article.aspx?doi=10.7326/0003-4819-158-3-201302050-00579&an_fo_ed).

<sup>258</sup> One review showed that integrated care has been effective in treating depression, anxiety, at-risk alcohol, and ADHD in primary care settings. Mary Butler, et al., AGENCY FOR HEALTH CARE RESEARCH & QUALITY, INTEGRATION OF MENTAL HEALTH/SUBSTANCE ABUSE AND PRIMARY CARE (2008), available at <http://www.ahrq.gov/research/findings/evidence-based-reports/mhsapc-evidence-report.pdf>. Another found that collaborative care models provide effective treatment for comorbid physical and mental health conditions. BENJAMIN G. DRUSS & ELIZABETH WALKER, ROBERT WOOD JOHNSON FOUND., MENTAL DISORDERS AND MEDICAL COMORBIDITY, (2011), available at <http://www.rwjf.org/content/dam/farm/legacy-parents/mental-disorders-and-medical-comorbidity>.

<sup>259</sup> With regard to behavioral health services, the HPC requested “[a] detailed description of plans for enhancing access to behavioral health services, including any plans to expand inpatient behavioral health capacity, to retain and/or expand existing outpatient behavioral health capacity (e.g., intensive outpatient, partial hospitalization, and nursing home psychiatric consultation services currently offered by Hallmark), to allocate behavioral health services toward specific populations (e.g., whether the current mix of behavioral health beds for children, adolescents, adults, and geriatric patients is anticipated to change), to integrate behavioral health with primary care and other medical care, to hire additional behavioral health clinicians, and to clinically integrate behavioral health services in the region with those provided at McLean/MGH and/or other Partners providers (e.g., any plans for shared staffing, referrals, exchange of best practices).” With regard to community need and stakeholder engagement, the HPC requested “[a] detailed description of methods to assess, with diverse stakeholder input, community need for emergency services in Lynn and Medford beyond the parties’ two to three year commitment to maintain such services, need for and impact of plans to shift volume from emergency departments to urgent care centers, unmet community need for services the parties propose to expand (such as orthopedics and gastroenterology), community need for services the parties propose to redirect (e.g., services that require inpatient stays of longer than three days redirected from Hallmark-LMH), and community need for services tailored to vulnerable populations (e.g., services for patients with language and cultural barriers to care).” PRELIMINARY REPORT, *supra* note 164, at 72.

commitments to ongoing, transparent engagement with the relevant communities and stakeholders to ensure that final care delivery decisions align with community needs. The parties' Written Response failed to provide such information or commitments that would allow the HPC and the public to evaluate the extent to which the parties are likely to realize the potential to enhance access in this region, or mitigate identified access concerns. We highlight below the deficiencies in the parties' response regarding behavioral health services and ensuring that care delivery changes align with community needs.

- a. *While the written response includes additional information suggesting a general opportunity to increase quality of and access to behavioral health services, it does not include critical information or commitments necessary for the HPC to evaluate the extent to which the parties may realize this potential.*

In response to the HPC's request for further information on the parties' plans for behavioral health services,<sup>260</sup> the parties included some additional information in their Written Response. With regard to inpatient services, the parties did not provide new information or commitments that would allow the HPC to assess important questions such as the transaction's anticipated impact on inpatient behavioral health capacity. The parties reiterated their previous position that NSMC-Union will "accommodate the current psychiatric beds at LMH and at Salem," and that NSMC-Union will have "up to 17 new beds."<sup>261</sup> The Written Response thus confirms that the transaction will not result in a net reduction in psychiatric beds, and that the parties have not yet committed to a minimum number of new beds.<sup>262</sup> The parties also reproduced information indicating their plans may involve a shift in the mix of behavioral health beds, with a potential decrease in geriatric beds and a potential increase in adult beds. We did not receive any information regarding the need for or anticipated impact of such a shift.

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<sup>260</sup> The HPC requested "[a] detailed description of plans for enhancing access to behavioral health services, including any plans to expand inpatient behavioral health capacity, to retain and/or expand existing outpatient behavioral health capacity (e.g., intensive outpatient, partial hospitalization, and nursing home psychiatric consultation services currently offered by Hallmark), to allocate behavioral health services toward specific populations (e.g., whether the current mix of behavioral health beds for children, adolescents, adults, and geriatric patients is anticipated to change), to integrate behavioral health with primary care and other medical care, to hire additional behavioral health clinicians, and to clinically integrate behavioral health services in the region with those provided at McLean/MGH and/or other Partners providers (e.g., any plans for shared staffing, referrals, exchange of best practices)." PRELIMINARY REPORT, *supra* note 164, at 72.

<sup>261</sup> Written Response, *supra* note 11, at 16-17. The parties also state that the transaction will "ensur[e] the preservation of licensed inpatient beds at MWH that will provide medical psychiatric care," *id.* at 16, though we do not know whether the parties will retain all or a subset of MWH's current medical-psychiatry beds.

<sup>262</sup> Other health care systems in the Commonwealth have publicly committed to expanding behavioral health capacity, including Southcoast Health (Press Release: Southcoast Health announces inpatient behavioral health hospital in Dartmouth (Aug. 5, 2014), available at <http://www.southcoast.org/news/releases/2014/2014-0805.html> (describing plans to build a 120-bed behavioral health hospital); Steward Health Care System (Liz Kowalczyk, *Steward Health Care expanding psychiatric facilities*, BOSTON GLOBE, Aug. 7, 2014, available at <http://www.bostonglobe.com/metro/2014/08/06/hospitals-expanding-psychiatric-units/FCKNHUP5thhG93ncAUaYeM/story.html> (describing the addition of 40 adult behavioral health beds and plans to add 30 more beds in the next nine months)); MetroWest Medical Center (Jonathan Phelps, *Psychiatric care to expand at MetroWest Medical in Natick*, METROWEST DAILY NEWS, Aug. 8, 2014, <http://www.metrowestdailynews.com/article/20140808/NEWS/140807384> (describing plans to add 14 adult behavioral health beds at Leonard Morse Hospital)).

With regard to outpatient behavioral health services, the Written Response identifies certain outpatient services to be offered at NSMC-Union,<sup>263</sup> NSMC-Salem,<sup>264</sup> and Hallmark.<sup>265</sup> The parties also state that NSMC-Union will provide expanded pediatric and geriatric outpatient services and expanded partial hospitalization services, while Salem will have expanded adult and pediatric mental health and substance abuse services, neuropsychology evaluation services, and “Patient Navigator” services.<sup>266</sup> This information still lacks critical detail regarding how the parties will approach implementation, such as any planning they have conducted regarding staffing, funding levels, patient volume, or the scale and scope of the proposed outpatient expansions. In particular, as noted in the Preliminary Report, although adequate staffing is critical to expanding behavioral health services, the parties have yet to commit to any minimum number of new behavioral health clinicians.

- b. *The parties provide a high-level response regarding their approach to determining community need for services, and have not shown how or whether that approach substantiated decisions to invest over \$300 million at Hallmark, including expansion of specific service lines.*

The parties have stated that in many cases, their plans will develop as programs are deployed and community needs are assessed. We agree that careful planning is necessary, and that modifying new care delivery models as they progress is often advisable. It is for this reason the HPC asked the parties to provide their planned methods for assessing community needs,<sup>267</sup> noting in the Preliminary Report that a community assessment the parties commissioned did not evaluate or document any gaps between health care service needs and existing service capacity.<sup>268</sup> Reviewing this methodology would have allowed the public to evaluate its

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<sup>263</sup> The parties indicate that NSMC-Union would integrate mental health services with primary and specialty care through the NSPG Center of Excellence in Primary Care and offer intensive outpatient programs for pediatric, adolescent, and adult patients. Written Response, *supra* note 11, at 17.

<sup>264</sup> The parties indicate that NSMC-Salem would offer psychiatric urgent care, psychiatric emergency services, and close coordination of outpatient behavioral health and primary care. *Id.* at 17-18.

<sup>265</sup> The parties indicate that Hallmark would offer outpatient adult psychiatric and pharmacological services, geriatric and adult intensive outpatient services, nursing home consultation services, a crisis team, the Center for Healthy Minds, and the integration of behavioral health and primary care services. *Id.* at 18.

<sup>266</sup> *Id.* at 17.

<sup>267</sup> The Preliminary Report specifically requested “[a] detailed description of methods to assess, with diverse stakeholder input, community need for emergency services in Lynn and Medford beyond the parties’ two to three year commitment to maintain such services, need for and impact of plans to shift volume from emergency departments to urgent care centers, unmet community need for services the parties propose to expand (such as orthopedics and gastroenterology), community need for services the parties propose to redirect (e.g., services that require inpatient stays of longer than three days redirected from Hallmark-LMH), and community need for services tailored to vulnerable populations (e.g., services for patients with language and cultural barriers to care).” PRELIMINARY REPORT, *supra* note 164, at 72.

<sup>268</sup> As noted above at Section III.C.2, the parties commissioned a community assessment that discusses general health concerns and prevalence of certain conditions in Hallmark’s service area. That assessment highlights community concerns about access to services for vulnerable populations and to behavioral health services. The assessment also identifies physical health conditions prevalent in the community, including cancer, cardiovascular disease, diabetes, and obesity. However, the assessment does not evaluate or document gaps between health care service need and existing capacity, and therefore cannot substitute for a robust methodology to assess the relative need for different services.

adequacy, acknowledging that the parties have not yet finalized all details of their proposed changes to care delivery. In response, the parties generally described their approach to planning for two service line changes—the shift of short-stay inpatient services from MGH to Hallmark and the shift of low-acuity cases from emergency departments to an urgent care setting—and stated: “Partners and HHS anticipate that future evaluations regarding the community need for services would begin with a similar analytic approach, with an evaluation of the local demographics, clinical needs of the population, the available capacity, the most appropriate site for the delivery of care, and the potential for offering the needed services in an appropriate, lower cost setting. These evaluations would also include input from clinical leadership as well as other clinical staff (for example, an evaluation of the need for an Emergency Department would likely include input not only from emergency physicians but also from local Emergency Medical Technicians), and a process would be developed to consult and confer with other stakeholders as appropriate, depending on the proposed area under discussion.”<sup>269</sup>

Given the high-level nature of this response, it is difficult for the HPC or the public to assess the adequacy of the parties’ planned approach to evaluating need and engaging with the community on important care delivery changes that are not yet finalized. These include assessment of which medical-surgical services to move from Hallmark-LMH, the level of need for services tailored to vulnerable populations, and the level of need for emergency services in Lynn and Medford beyond the parties’ short-term commitment. Even if the parties successfully shift all appropriate ED cases to an urgent care setting, certain emergency cases will remain.<sup>270</sup> The parties have not shared specifics of how they will evaluate need for these services and engage with the community regarding this ongoing issue. Similarly, the parties have not shared how they will assess continuity of care needs for patients whose site of care will be moved (e.g., approximately 61% of current discharges at Hallmark-LMH and all patients receiving medical-surgical care at NSMC-Union). Such assessments are necessary to protect ongoing access for these patients, many of whom, based on the payer mix of these facilities, are likely low-income individuals, elders, or individuals with disabilities.

Equally important, the parties do not provide support for how service lines they have already identified for expansion at Hallmark, such as orthopedics, cardiology, gastroenterology, and \$45 million in expanded oncology services at a new MGH Stoneham Cancer Center, underwent an appropriate needs evaluation to assess whether there is unmet need in the community for such services. The HPC remains concerned, in the absence of a robust and reliable methodology for assessing community need, that certain services may be expanded for purposes other than addressing unmet community need.<sup>271</sup> Where providers are unable to demonstrate that service expansions are based on unmet need, it becomes more likely that the expanded capacity will be supported by shifts in volume from other providers, rather than new

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<sup>269</sup> Written Response, *supra* note 11, at 26.

<sup>270</sup> Specifically, the parties have indicated that lower acuity cases amenable to treatment at an urgent care center account for “up to 65%” of Hallmark’s ED visits, leaving a small but significant number of patients in need of emergency care. *Id.* at 25.

<sup>271</sup> The parties’ planned investments mirror a national trend of expanded capacity for specific specialty services such as cardiology, cancer, orthopedics, women’s and children’s services, and GI endoscopy. According to a survey of senior hospital executives across the country, one of the factors motivating this trend is service line profitability. For more on expansion of specialty service lines and underlying factors, see Berenson, *supra* note 65.

needed volume. This is of concern to the HPC as providers often rely on a balanced mix of services and payers to maintain financial viability and adequate access to all services. Changes to the service mix or payer mix of the parties may impact the financial condition of other area providers, with potentially significant implications for how our health care system finances adequate access to all needed services, including low-margin services, for all populations.<sup>272</sup>

2. Relocating Inpatient Behavioral Health Services May Have an Adverse Impact on Access to these Services for Vulnerable Populations; the Parties Have Not Shared Plans to Mitigate Such Impact.

As described in Section II.C, the parties propose to relocate all behavioral health beds at Hallmark-LMH and NSMC-Salem, and “non-medical/psychiatry cases” at Hallmark-MWH,<sup>273</sup> to NSMC-Union, which will become a dedicated behavioral health center of excellence. NSMC-Union’s behavioral health beds would thus increase from 38 to 140, and the behavioral health patients who would have received care at Hallmark-LMH and NSMC-Salem would be expected to receive care at NSMC-Union. Given that Hallmark and NSMC serve a relatively high mix of government payer patients, who tend to be low-income, elderly, and/or disabled, and given the unique vulnerabilities of behavioral health patients, the Preliminary Report directionally assessed potential risks associated with a change in location of services for these vulnerable populations. Specifically, we analyzed changes in commute times that would result if patients currently receiving these services at Hallmark-LMH, Hallmark-MWH, and NSMC-Salem sought services at NSMC-Union. We found that drive times would generally increase by 50 percent or more.<sup>274</sup> This impact would be more pronounced for patients who rely on public transportation, as there are few public transportation options from the areas near Hallmark-LMH and Hallmark-MWH to NSMC-Union.<sup>275</sup> These increased travel times may have an adverse impact on elders, individuals with disabilities, and individuals with limited income, who may have more limited access to transportation services.<sup>276</sup>

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<sup>272</sup> See *supra* Section II.C. Other providers have raised concerns that, due to Partners’ high prices, certain Medicaid managed care plans have been unable to keep Partners in their networks, resulting in a shift in Medicaid volume to Partners’ competitors.

<sup>273</sup> The parties indicate that the transaction will “ensur[e] the preservation of licensed inpatient beds at MWH that will provide medical psychiatric care,” Written Response *supra* note 11, at 16, though we do not know whether the parties will retain all or a subset of MWH’s current psychiatry beds.

<sup>274</sup> For patients who would have received mental health services at NSMC-Salem, there will only be a minor increase in average drive times of a few minutes. For patients of Hallmark-LMH and Hallmark-MWH, average drive times will increase by 50 percent or more (from an average of seven to 13 minutes, to over 17 minutes, for patients of Hallmark-LMH, and from eight to 11 minutes, to over 16 minutes, for patients of Hallmark-MWH). These drive time increases may be significantly greater during peak travel times.

<sup>275</sup> Specifically, behavioral health patients in the Hallmark PSA currently using public transportation to seek care at Hallmark-LMH will have an approximately 90-minute transit time if they seek those services at NSMC-Union post-transaction, behavioral health patients in the NSMC PSA currently using public transportation to seek care at NSMC-Salem will have approximately a 37-minute transit time if they seek those services at NSMC-Union post-transaction, and behavioral health patients in the Hallmark PSA currently using public transportation to seek care at Hallmark-MWH will have approximately an 84-minute transit time if they seek those services at NSMC-Union post-transaction.

<sup>276</sup> For more on how behavioral health service delivery can depend on transportation systems, see Grazia Zulian et al., *How are Caseload and Service Utilisation of Psychiatric Services Influenced by Distance? A Geographical Approach to the Study of Community-Based Mental Health Services*, 46 SOC. PSYCHIATRY & PSYCHIATRIC

In response to the HPC's concerns about transportation limitations that could impose a barrier to care for relocated behavioral health services, the parties in their Written Response provide a high-level description of their general planning approach.<sup>277</sup> They state that "a similar approach would be used in evaluating and planning for patient and family transportation needs and developing specific plans to ensure continuity of care" and that "[a]ppropriate transportation plans will be developed in order to ensure continued access to, and continuity of care for, these vulnerable populations." They also note that "[t]he lack of psychiatric inpatient resources statewide makes it very difficult for patients to obtain behavioral health care in their local communities, and many, if not most, must travel some distance to obtain needed care."<sup>278</sup>

While the parties state that many patients must currently travel outside their local communities to obtain needed care, the HPC found that for the facilities that are the subject of this transaction – Hallmark and NSMC – a significant proportion of behavioral health discharges originate from a compact area around each hospital campus.<sup>279</sup> Given that Hallmark and NSMC serve a high mix of government payer patients, who are often local residents who are low-income, elderly, and/or disabled, and given the unique vulnerabilities of behavioral health patients, a significant increase in transportation complexity and travel time raises potentially serious access problems. The parties have not shared plans, or a specific approach to generating plans, that reflect an appreciation for the access issues the re-alignment poses for these particular communities, and the HPC therefore remains concerned about the potential impact of this transaction on these vulnerable populations.<sup>280</sup>

### 3. Relocating Inpatient General Acute Care Services Is Unlikely to Impair Regional Access to These Services

As described in Section II.C, the parties also plan to both relocate and reduce the number of general acute care beds. Specifically, the parties plan to convert Hallmark-LMH to an outpatient and short-stay inpatient facility and reduce its bed count from 132 to approximately 30

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EPIDEMIOLOGY 881 (2011), available at <http://link.springer.com/article/10.1007/s00127-010-0257-4>; NAT'L COLLABORATING CTR. FOR MENTAL HEALTH, BRITISH PSYCHOLOGICAL SOC'Y, COMMON MENTAL HEALTH DISORDERS: IDENTIFICATION AND PATHWAYS TO CARE (2011), available at <https://www.ncbi.nlm.nih.gov/books/NBK92265/>.

<sup>277</sup> *Supra* note 269.

<sup>278</sup> Written Response *supra* note 11, at 3, 17.

<sup>279</sup> *Supra* Section III.C.1.

<sup>280</sup> The conversion of NSMC-Union into a specialized psychiatric facility may also have implications for the mix of patients served. As described in Section III.C, while NSMC and Hallmark have a higher mix of government payer patients, Partners' specialty psychiatry facility, McLean Hospital, has a high commercial payer mix compared to similar hospitals in the Commonwealth. NSMC-Union also has a higher mix of commercial behavioral health patients and the highest mix of commercial patients among the Hallmark and NSMC hospitals. Given these patterns, there is the potential that the conversion of NSMC-Union into a specialty psychiatry facility and the elimination of behavioral health beds at NSMC-Salem and Hallmark-LMH may shift the overall payer mix of behavioral health services provided by the parties in this region. This shift could occur due to any number of reasons. As Partners does not participate in certain MassHealth programs for dual-eligible patients (the Integrated Care Organization and Senior Care Options programs), these patients would likely need to seek care elsewhere. Additionally, depending on licensure models, CMS's Institutions for Mental Diseases (IMD) restrictions may limit the use of the NSMC-Union facility for government payer patients.

to 40. The parties also plan to convert NSMC-Union into a behavioral health center of excellence, closing its 88 non-behavioral health beds. Hallmark-MWH and NSMC-Salem will remain general acute care hospitals, with significant investments planned to expand inpatient capacity in light of the Hallmark-LMH and NSMC-Union conversions.<sup>281</sup> The parties anticipate that patients who would have received general acute care services at Hallmark-LMH will receive care at Hallmark-MWH and patients who would have received general acute care services at NSMC-Union will receive care at NSMC-Salem. Across the four facilities, these changes would decrease the net number of beds by up to 110.

Although these changes may have implications for local access to general acute care services in and around Lynn and Medford, the net decrease in inpatient medical and surgical capacity will likely not compromise overall access to these services in the region. As described in Section III.C.2, a survey of general acute care capacity in the region suggests that sufficient inpatient beds exist. Even after the parties' planned conversions, we project that a sufficient number of staffed, unoccupied beds will remain available for patient care, and that other area hospitals with underutilized capacity will likely be able to accommodate the patients diverted from Hallmark-LMH and NSMC-Union.

In sum, the parties have proposed a set of significant care delivery changes that represents an important opportunity to reshape the structure of care delivery in northeastern Massachusetts and expand access to a range of services in the region. However, the extent to which the parties realize such potential will be driven by key implementation decisions and firm commitments not available for our review. The absence of this critical information prevents us from drawing many conclusions regarding the likelihood the parties will realize this general potential to expand access, and whether they will adequately address identified access concerns. Given Hallmark and NSMC's higher government payer mix and the significant behavioral health services they provide to their local communities, the HPC continues to be concerned that the proposed service reconfigurations may adversely impact these vulnerable populations as they seek to access services at more distant locations.

## V. CONCLUSION

As described in Part IV, the HPC found:

1. **Cost Impact:** This transaction will reinforce Partners' position as the provider with the highest share of inpatient and primary care services in its northeastern Massachusetts service areas. Over time, this transaction is anticipated to increase spending in northeastern Massachusetts by an estimated \$15.5 million to \$23 million per year for the three major commercial payers due to material price effects, which are not expected to be offset by commensurate savings from decreased utilization through population health management.

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<sup>281</sup> See Section II.C describing Partners' investment of approximately \$190 million at NSMC-Salem and \$152 million at Hallmark-MWH.

2. **Quality Impact:** The differences in Partners and Hallmark’s historic quality performance indicate potential for the transaction to drive quality improvement. However, Partners and Hallmark have already been affiliated for nearly 20 years, including joint clinical and contracting efforts, and it is unclear how this merger is necessary to improve clinical quality in ways the parties’ longstanding affiliation has not.
3. **Access Impact:** The parties have proposed significant changes to care delivery that have the potential to expand access to a number of services in northeastern Massachusetts. However, the parties’ plans, including those submitted in response to the Preliminary Report, lack critical information necessary to evaluate the extent to which such potential will be realized. Given Hallmark and NSMC’s high government payer mix, the proposed reconfiguration and relocation of services is anticipated to impact especially vulnerable populations as they seek to access services at new, more distant locations.

In summary, based on our review, we find that the proposed transaction between Partners and Hallmark is likely to increase health care spending in northeastern Massachusetts, reinforce Partners’ market power, and, over time, increase premiums for employers and consumers. While the parties have described PHM initiatives that have the potential to reduce total medical spending, those potential savings are unlikely to offset the projected increases to health care spending. At the same time, this transaction has the potential to improve quality and increase access to certain health care services. The parties’ plans, including those submitted in response to the Preliminary Report, lack critical information to enable us to assess the likelihood that this potential will be realized, or confirm that potential adverse impacts to vulnerable populations will be sufficiently mitigated.

Based on these findings, the HPC concludes that this transaction warrants further review and consideration of mitigation of transaction-specific impacts, and refers this report to the AGO pursuant to MASS. GEN. LAWS ch. 6D, § 13. In particular, we note that the parties have consistently advocated for the proposed transaction on the basis that it will lower total medical spending, and have publicly stated their purpose in consolidating is not to raise prices. Given this perspective, the parties should consider committing to additional or alternative measures to mitigate the impacts identified in this report. For example, the parties could commit not to increase the prices of Hallmark providers in connection with this transaction, including maintaining “affiliated” rates for Hallmark physicians regardless of their employment or integration status, and maintaining current facility rates, regardless of whether the facilities convert to a Partners license. Regarding Hallmark’s hospitals, the parties could commit not to increase Hallmark’s rates more quickly than the rate of increase for any non-Partners community hospital in northeastern Massachusetts.

Similarly, consistent with the parties’ position that this transaction will lower total medical spending, the parties could commit to a lower level of total medical spending across all books of business for the operations and providers described in their transaction materials. To better monitor the parties’ commitment that total medical spending will decrease, the parties could extend monitoring of TME across multiple books of business, including all HMO/POS patients (fully-insured and self-insured, risk and non-risk); all PPO patients whom payers or the state are able to attribute to a provider system; and all members of Partners’ self-insured plans.

Finally, we note that in addition to monitoring challenges, the above examples do not address all of the possible negative impacts of this transaction. For example, this transaction is projected to reinforce Partners' position as the provider with the highest share of inpatient and PCP services in its northeastern Massachusetts service areas and to strengthen Partners' ability and incentives to negotiate price increases and other favorable contract terms. Without lasting change to the market structures and incentives that underlie the operation of bargaining leverage, there are inherent limitations to the ability of time-limited price constraints to contain costs in the long-term.



# COMMONWEALTH OF MASSACHUSETTS HEALTH POLICY COMMISSION

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## Acknowledgements

Kate Scarborough, Deputy Director for Cost and Market Impact Reviews, Sasha Hayes-Rusnov, Senior Policy Associate for Market Performance, and Sam Wertheimer, Senior Policy Associate for Performance Analytics, prepared this report under the direction of Karen Tseng, Director of Policy for Market Performance, with significant contributions by Iyah Romm, Director for System Performance and Strategic Investment, Lois Johnson, Kate Durlacher, and Amy Katzen.

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Health Policy Commission  
Two Boylston Street, 6th Floor  
Boston, MA 02116  
[www.mass.gov/HPC](http://www.mass.gov/HPC)  
(617) 979-1400  
[HPC-Info@state.ma.us](mailto:HPC-Info@state.ma.us)

# EXHIBIT A:

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## PARTNERS HEALTHCARE AND HALLMARK HEALTH'S RESPONSE TO PRELIMINARY REPORT\*

\*For appendix A to the response, please see  
<http://www.mass.gov/ago/docs/press/2014/partners-settlement-062414.pdf>

**Partners HealthCare and Hallmark Health's Response  
to the Health Policy Commission's Preliminary CMIR Report  
dated July 2, 2014**

August 1, 2014

## **Executive Summary**

Partners HealthCare System (“Partners”) and Hallmark Health Corporation (“HHC”) submit this response to the Health Policy Commission’s (“HPC”) Preliminary Report (the “Preliminary Report”) on Partners’ proposed acquisition of HHC and its affiliates, including Hallmark Health System (“HHS”) (the “Transaction”). This Transaction is a unique opportunity to support our mission in the Northern Corridor, realize an entirely new vision for care delivery, and restore financial health to HHS and its neighboring Partners facility, North Shore Medical Center (“NSMC”). Therefore, we are disappointed in – and strongly disagree with – the conclusions in the Preliminary Report that summarily dismissed the affirmative aspects of the Transaction, focused on potential cost increases, and asserted a negative market impact from the Transaction. These conclusions ignore the multilayered controls that exist in the Massachusetts environment that would guard against such a result. These include the health care cost growth benchmark that was created by Chapter 224 and is monitored by the HPC; longstanding restrictions on Partners physician slots in its existing payer contracts; and the important constraints that are established in the Consent Judgment that has been negotiated with the Massachusetts Attorney General (see Appendix A). Furthermore, the HPC’s conclusions do not consider the important consumer and community benefits created by the Transaction including, among others, the addition of much-needed behavioral health capacity and lower cost, higher quality, and more convenient care closer to patients’ homes.

### **The Transaction Is Needed to Address Significant Financial Challenges and Reorganize Care**

In addition to the benefits outlined above, the Transaction offers an opportunity to confront and address the significant structural and financial challenges faced by HHS and NSMC. Contrary to the HPC’s conclusion that HHS is in a positive and improving financial position, HHS faces significant financial challenges and an uncertain future. It has an aging physical plant, requires critical infrastructure investments, and has determined that it does not have the financial wherewithal to continue operations as a standalone community health care system. Likewise, NSMC has been challenged by persistent negative operating margins for years, continuing its services to patients and the community only as a result of substantial subsidies from Partners. Failure to take action now places the ongoing provision of services in these communities at grave risk.

At the core of the Transaction are substantial and deeply interrelated programmatic and facility investments in HHS and NSMC that are designed to operate collectively to deliver the best possible care to patients and their families in the region and reverse these operating losses, losses that are largely attributable to stagnant patient demographics and a trend of decreasing inpatient admissions and utilization of medical services in general. Partners and HHS will consolidate and reorganize their collective acute care campuses from four to two, repurpose the remaining two facilities, reallocate the distribution of services among HHS, NSMC, and Massachusetts General Hospital (“MGH”), and create much-needed new behavioral health capacity. This plan will also alter the consumer preference of seeking care in more costly urban academic institutions by making major investments in community-based infrastructure and services. Without such a plan, the viability of HHS and NSMC in their current configuration and the services that they offer to their communities are in jeopardy.

## **The Consent Judgment Addresses HPC Concerns**

The Consent Judgment establishes unprecedented, multilayered guardrails that will be an effective control over Partners' ability to obtain rates at HHS that could otherwise have a material impact on health care spending. Component Contracting, which creates separate components of the Partners system for contracting purposes, has significant consequences for HHS, as it is unreasonable to conclude that HHS, acting independently, could achieve better rates than it has achieved to date while contracting jointly with Partners. Furthermore, Partners' payer contracts either do not allow the automatic physician rate increases that HPC asserts will occur as physicians are changed from "affiliated" to employed ("integrated") status or they include mechanisms that make any such shift in rate status budget neutral for the payer. These budget neutrality provisions thus effectively negate the impact on overall health care costs. Finally, the HPC structures its market share and market power analyses in a way that produces erroneously high market shares and market concentration. As a result, any such analysis leads to erroneous predictions of anticompetitive effects from the Transaction. Even if the HPC had taken the steps necessary to properly define the relevant markets, it uses the HHI antitrust market concentration methodology without any adjustment for, or even consideration of, the Consent Judgment.

## **Investments in Behavioral Health will Enhance Access for Vulnerable Populations**

Partners and HHS are proposing a substantial reorganization and investment in behavioral health that will both increase inpatient capacity to alleviate currently unmet demand and expand outpatient capacity to reduce hospitalizations and readmissions and shorten lengths of stay. This investment in behavioral health will improve care for patients, enhance their quality of life, and lower overall health care costs. The benefits of collaboration, consolidation, and linkage to an AMC will improve access to this most acute level of care, and will help to assure that the inpatient stay is best able to meet the specific needs of any given patient. Appropriate transportation plans will be developed in order to ensure continued access to, and continuity of care for, these vulnerable populations.

## **Population Health Management Will Generate Substantial Savings**

Partners has taken a leadership role to implement Population Health Management ("PHM") throughout its system based on the consensus among national health policy leaders and across the health care industry that PHM is a key path forward to containing health care costs and achieve quality improvements. PHM is new and evolving. Therefore, by definition, there is limited history from which to draw evidence-based data. We urge the HPC to balance the need for sound data against this reality, and not stand in the way of this important response to today's pressing health care public policy needs. Since its submission of the Notice of Material Change last year, Partners has continued to develop its full slate of evidence-backed PHM programming and a methodology to estimate PHM savings that applies a bottoms-up approach on a program-by-program basis. Using this methodology, Partners estimates that the Transaction will yield an average of \$21 million annual savings (over each of the next 5 years) in PHM in the commercial and Medicare patient populations. These are substantial savings that HHS would be

unable to achieve absent the Transaction, which provides both the capital to implement this PHM initiative and access to the full slate of Partners PHM programming.

### **The Consumer and Community Benefits of the Transaction Are Substantial**

We also urge the HPC to look beyond the Preliminary Report and broaden its evaluation of the Transaction to give due consideration and support to the many consumer and community benefits for the Northern Corridor's patients, their families, the community, and the health care delivery system. In addition, we request that the HPC consider the Transaction as an opportunity to restore HHS to financial health, a demonstrated need for which the HPC offers no other solution. Finally, in doing so the HPC should recognize and give appropriate weight to the protections afforded by the Consent Judgment as it affects the Transaction. Accordingly, there is no reason in these circumstances for the HPC to make a referral to the Massachusetts Attorney General as the end result of this review.

## **Introduction**

Partners HealthCare System (“Partners”) and Hallmark Health Corporation (“HHC”) submit this response to the Health Policy Commission’s (“HPC”) Preliminary Report (the “Preliminary Report”) on Partners’ proposed acquisition of HHC and its affiliates, including Hallmark Health System (“HHS”) (the “Transaction”). This Transaction is a unique opportunity to support our mission and realize an entirely new vision for care delivery in the Northern Corridor.<sup>1</sup> Through community infrastructure investments, care redesign, and expanded behavioral health and other clinical services in the community, it will advance many health care reform cost containment goals envisioned by both the Affordable Care Act and Chapter 224 of the Acts of 2012, and provide tangible and sustainable benefits to the residents of the Northern Corridor communities. The Transaction will also restore financial health to both HHS and its neighboring Partners facility, North Shore Medical Center (“NSMC”), and thus avoid facility closures that would be disruptive to access, continuity of care, and the local economies of certain Northern Corridor communities. Finally, this Transaction will provide much needed additional behavioral health services capacity in the Northern Corridor and lower cost, higher quality and more convenient care closer to patients’ homes. Therefore, we are disappointed in – and strongly disagree with – the HPC’s failure to credit these tangible and sustainable benefits to the Northern Corridor. We also disagree with the HPC’s conclusions that the Transaction will increase health care spending in the Northern Corridor and, more specifically, its failure to evaluate the Transaction with full consideration of the Consent Judgment (the “Consent Judgment”) filed by the Commonwealth of Massachusetts, Partners, HHS, and South Shore Hospital (“SSH”) in Massachusetts Suffolk Superior Court (Civil Action No. 14-2033-BLS2; see Appendix A). The Consent Judgment will impose significant constraints on Partners’ contracting and fully address HPC’s price concerns as expressed in the Preliminary Report.

This submission responds to points, conclusions, and analyses included in the Preliminary Report, and provides additional detail on implementation plans and certain other aspects of the Transaction. Responses to the HPC’s specific requests for more information are included in this submission in Sections V and VII (see pp. 15-18 and 25-26).

### **I. Overview of the Transaction**

Both HHS and NSMC are experiencing financial challenges. Contrary to the HPC’s conclusions in the Preliminary Report, HHS is struggling with declining revenues and patient volume, as described in more detail below. It has an aging physical plant, requires critical infrastructure investments, and has determined that it does not have the financial wherewithal to continue operations as a standalone community health care system. NSMC is also substantially challenged by persistent negative operating margins, and has kept its doors open only through the help of Partners subsidizing its operations by \$40M to \$50M annually for the past several years.

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<sup>1</sup> We use the term “Northern Corridor” to refer to the combined primary and secondary service areas of HHS and of NSMC. However, this area is simply used for planning purposes; the hospitals compete with other health care providers in a much broader area.

This Transaction offers an opportunity to confront and address the structural and financial challenges of HHS and NSMC. At its core are substantial and deeply interrelated programmatic and facility investments in HHS and NSMC that are designed to operate collectively and deliver the best possible care to patients and their families in the Northern Corridor and reverse these operating losses. As proposed in the Transaction, HHS and Partners will consolidate and reorganize their collective acute care campuses from four to two, repurpose the remaining two facilities, reallocate the distribution of services among HHS, NSMC, and Massachusetts General Hospital (“MGH”), and create much-needed new behavioral health capacity. Without such a plan, the viability of HHS and NSMC in their current configuration and the services that they offer to their communities are in jeopardy.

We also have designed the Transaction cognizant of today’s rapidly transforming health care delivery system, with state and federal health care reform laws, health insurers, and health care providers driving changes in health care payment and delivery to reduce costs and improve quality. Chapter 224 of the Acts of 2012 encourages providers to further evolve current integrated delivery systems to achieve these public policy imperatives. At the heart of this Transaction is comprehensive planning to maximize the ability of the Partners and HHS facilities to bend the cost curve and improve quality and outcomes. More specifically, through three core initiatives described below, the Transaction will redesign care, redirect resources to community-based care, build new community capacity for unmet needs, and develop new capabilities to deliver population health management (“PHM”).

#### *1. System Redesign through the Rationalization Initiative*

A principal imbalance in the Massachusetts health care delivery system today is the relative preponderance of hospital care that is provided at academic medical centers (“AMCs”) rather than community hospitals. While AMCs provide Massachusetts residents access to some of the best health care facilities in the world, this delivery system model is costly and has been difficult to change due to underlying patient preferences for care at AMCs. Partners is both committed and well-positioned to help correct this imbalance by investing in community hospital infrastructure, sharing its AMC expertise and leading PHM programs with community institutions, and enhancing community offerings to make them more attractive to patients. Major programmatic investments and care delivery redesign of this scope requires the move from affiliation to acquisition, because a common bottom line drives major financial and resource commitments in furtherance of joint – rather than individual entity – objectives. For example, within the first few years of its acquisition by Partners, NSMC expanded with a new cardiology facility, upgraded into a fully integrated electronic medical records system with Partners, and experienced significant debt relief through Partners funding. Similarly, Newton Wellesley Hospital (“NWH”), which has been an owned part of Partners for over fifteen years, has been a beneficiary of this approach. It has a sizable number of joint programs with MGH and Brigham & Women’s Hospital (“BWH”), and has been transformed from a financially distressed state to robust health and reputation subsequent to its acquisition by Partners. This Transaction will enable Partners and HHS to do the same, and to serve a greater number of patients closer to home and at lower cost.

To achieve that goal, Partners and HHS will reconfigure the HHS and NSMC campuses to address unmet community needs for services and capacity, including short stay beds, urgent care, PHM for

chronic conditions, and integrated subspecialty cancer care. The resulting rationalized facilities will enable Partners and HHS to redirect care to community-based facilities, away from the higher-cost AMC setting of MGH, thereby reducing costs by substituting services currently provided at MGH with community priced services, and providing them closer to the populations served. The new configuration will also eliminate the duplicative costs of excess acute care capacity. Specifically, the Transaction will:

- Consolidate four full service inpatient campuses in the Northern Corridor into two (Melrose Wakefield Hospital (“MWH”) and Salem Hospital (“Salem”));
- Repurpose the Lawrence Memorial Hospital (“LMH”) campus into a short-stay mixed-use facility, with robust outpatient services in key service lines and 30 to 40 beds for short stay/procedural care.<sup>2</sup> The repurposed LMH facility will provide services at a convenient, cost effective, and appropriate setting for patients and enable HHS and MGH medical staff to build collaborative programs. In addition, the LMH facility will include a medical office building to house key PHM programs customized for chronic disease in the Northern Corridor;
- Repurpose the Union Hospital (“Union”) campus into a Center of Excellence in Behavioral Health that consolidates psychiatric and substance abuse services in collaboration with MGH, whose psychiatry department was recently ranked #1 nationally by *U.S. News & World Report*;<sup>3</sup>
- Expand and enhance the North Shore Physicians Group (“NSPG”) practice adjacent to Union into a Center of Excellence in Primary Care, including expansion of urgent care services and creation of complementary services to the Center of Excellence in Behavioral Health;<sup>4</sup> and
- Establish an Outpatient Cancer Center in the Stoneham area, increasing capacity in medical oncology and radiation oncology to accommodate the MGH cases that will be redirected from the MGH main campus back to this community-based, MGH-licensed center.

## 2. *Information System and Infrastructure Initiative*

Effective, integrated information technology infrastructure is critically important in order to evolve toward more clinically integrated networks and greater physician accountability for services along the continuum of care. Accordingly, the Transaction includes a plan to replace HHS’s current

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<sup>2</sup> The Emergency Department (“ED”) will remain open during the two-year transition to the short-stay mixed use facility as HHS evaluates community support and use of the ED. The urgent medical needs of the greater Medford community will continue to be met through the current Urgent Care Center. Major renovations are being planned to this campus are being planned to transform the hospital into a modern, state-of-the-art facility.

<sup>3</sup> This repurposed facility will consolidate the psychiatric beds that are currently at LMH, Salem, Union, and the non-medical/psychiatry cases at the MWH campus.

<sup>4</sup> We intend to maintain emergency services on both campuses and will determine the level of emergency care to be provided at each site based on the needs of the community and patient safety priorities.

systems with Partners eCare, a single electronic health record and revenue management system. Without the benefit of Partners eCare infrastructure, HHS would need to invest about twice as many dollars<sup>5</sup> to establish an IT infrastructure to support patient safety, efficient care, and successful PHM.

### *3. Investment in Population Health Management and Primary Care*

The Transaction will also expand the parties' PHM programs and better manage patients with chronic diseases through increased access to outpatient care, enhanced/alternative points of contact, and improved systems to support care delivery both in and out of the office setting. As noted above, an important component of the Transaction is the construction of a medical office building on the LMH campus to house chronic disease-specific programs. Furthermore, the Transaction's associated Primary Care initiative will expand primary care access in a manner that optimizes PHM through proven high-risk case management and patient centered medical home strategies. Partners has demonstrated success in high-risk case management in a 2006 Medicare demonstration project that compared patients managed by Partners to patients cared for in other local systems. As a result of this demonstration project, Partners generated an annual net health care savings of 7% among enrolled patients, reflecting a return on investment of \$2.65 for every dollar spent with lower mortality, Emergency Department visits, and admissions.<sup>6</sup> The Primary Care initiative will implement this successful high risk care management program, as well as the patient centered medical home approach, with information systems and allied personnel resources needed to effectively conduct PHM and coordinate the range of services needed by patients. The medical home model is nationally recognized and more effectively delivers care and avoids unnecessary and expensive acute episodes experienced in the current solo or very small group private practice model predominant at HHS today.

Given the major facilities and programmatic initiatives described above, the Transaction provides a much-needed remedy to Northern Corridor delivery system issues and creates positive cost and quality benefits to its residents and to the community. Yet the Preliminary Report presents the Transaction through the narrow lens of hypothetical cost critiques based on speculative existing rate differentials and worst case scenario projections. We strongly contest the HPC's dismissal of the positive and lasting benefits of the Transactions. The implications of the HPC's conclusions would leave HHS without a remedy to reverse its current downward spiral, which is not a viable option for the communities that it serves.

## **II. The Transaction Is Needed to Address Significant Financial Challenges and Reorganize Care**

As noted above, HHS faces significant financial challenges and an uncertain future. The HPC's conclusion that HHS is in a positive and improving financial position is incorrect for multiple reasons. First, the Preliminary Report analysis stops with FY12 statistics. HHS's more recent financial performance has been much less favorable. A review of HHS's FY13 results, along with FY14 Budget and

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<sup>5</sup> HHS conversion to Epic (eCare) as a part of Partners will cost approximately \$55M vs. \$100M as an independent facility.

<sup>6</sup> RTI International. Evaluation of Medicare Care Management for High Cost Beneficiaries (CMHCB) Demonstration: Massachusetts General Hospital and Massachusetts General Physicians Organization (MGH). September 2010.

year to date performance in FY14, reveals the impact of declining patient volumes and increased expenses. HHS concluded FY13 with a negative 0.95% operating margin (Net Patient Service Revenue (“NPSR”) over expenses). With the addition of investment income, the HHS total margin for FY13 was 2.26%. In FY14, HHS is budgeted for a negative 7.0% operating margin and a negative 5.2% total margin. In an attempt to stave off these losses, HHS has implemented significant cost savings initiatives and performance improvement projects in FY14. Through May 2014, HHS’s operating margin is a negative 5.86%, although investment results resulted in a negative 1.41% total margin.

The HPC’s conclusions regarding HHS’s financial condition also reflect an inaccurate use of margin figures. The Preliminary Report incorrectly lists HHS’s FY11 and FY12 operating margins at 4.4% and 4.5% respectively.<sup>7</sup> These numbers include income from HHS’s investment program for these years. Almost all sophisticated financial analysis separates operating performance from investment performance. Therefore, the inclusion of investment income in HHS’s operating margin calculation is misleading, as positive gains on an organization’s investment portfolio can mask weak returns on the organization’s core business. A strong investment market since 2009 has significantly buoyed HHS’s financial performance and total margin, despite weakening performance on its core operations. In order to accurately assess HHS’s financial position, the HPC should have conducted a review of HHS’s true operating margin.

Furthermore, as the HPC has recognized, operating and total margins are not the only financial measures of an organization. The HPC asserts in the Preliminary Report that HHS’s “cash reserves and current ratio are strong” and references growth in HHS’s NPSR from 2009 to 2012. However, in more recent performance, HHS has experienced a decline in its NPSR from \$291,795,000 in FY11 to \$282,977,000 in FY13, due to declining patient volume. In FY2011 HHS had a combined total of 16,155 patient discharges from MWH and LMH; by FY13, HHS’s total patient discharges had declined by nearly 23% to 12,467. Similarly, emergency department visits in the same time period declined by 11% from a total of 62,561 in FY11 to 55,960 in FY13. Additional declines in inpatient and emergency department volume are being experienced year-to-date in the current fiscal year.<sup>8</sup>

The HPC concludes its examination of HHS’s financial position with the statement that “our review of [HHS’s] financials does not indicate that financial distress is motivating its decision to affiliate with Partners.”<sup>9</sup> But the HPC’s review was based on a faulty analysis of outdated information. A correct analysis of HHS’s more recent financial results yields a very different conclusion. With the assistance of consultants Kaufman Hall, HHS has carefully evaluated whether or not it would have the financial wherewithal to continue as a standalone community health care system. It has concluded that the required expenditure of funds to modernize HHS’s facilities and to install a comprehensive electronic health records system would surpass all of HHS’s cash reserves. As the HPC has noted,<sup>10</sup> HHS’s average age of plant is higher than other area community hospitals in Massachusetts. In fact, HHS has estimated

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<sup>7</sup> Preliminary Report, page 19.

<sup>8</sup> From HHS Decision Support Data.

<sup>9</sup> Preliminary Report, p. 18.

<sup>10</sup> Ibid., p. 19.

that its facility capital needs alone exceed \$400 million.<sup>11</sup> HHS cannot make these investments on its own. Thus, HHS has concluded that without the Transaction it would be forced to make significant reductions in the locations and types of services that it provides to the residents of its communities. These reductions would likely include closure of the LMH campus entirely and the termination of all of its services. HHS does not believe that closure of LMH is in the best interest of the Northern Corridor communities, but without the Transaction, the closure would be necessary.

Once the HPC reviews more recent HHS financial performance data and appreciates the immense facility capital needs that extend well beyond HHS's available resources, we are confident that it will correctly conclude that HHS's financial position is neither positive nor improving. The HHS decision to affiliate with Partners in this Transaction was motivated in significant part by the desire of its Board to ensure HHS's future financial stability and to better serve its community.<sup>12</sup>

### **III. Consent Judgment Addresses HPC Concerns Regarding Price Impact of the Transaction**

We strongly disagree with HPC's conclusion that the Transaction will result in material increases in HHS hospital rates and physician fees for the physicians in the Hallmark Health Physician Hospital Organization ("HHPHO" and collectively with the HHS hospitals, the "Hallmark Health providers") and that there will therefore be a significant adverse impact on health care spending.<sup>13</sup> This conclusion is based principally on HPC's assertion that the Transaction will enhance the market share of the Partners Network in this service area and thus strengthen Partners' leverage in its Network-wide contracting with payers to negotiate significant hospital rate and physician fee increases for the Hallmark Health providers.

However, the Consent Judgment requires that for seven years Partners must allow payers to elect to contract with HHS and the HHPHO physicians separately from all other Partners providers ("Component Contracting").<sup>14</sup> By taking advantage of this Component Contracting requirement, payers can single out the Hallmark Health providers and require them to stand on their own in rate negotiations. If Partners were to seek significant rate increases for HHS and/or the HHPHO physicians, by using the Component Contracting option the payer could simply refuse to contract with HHS and HHPHO at these unacceptable rates and still be able to contract with the other components of the Partners Network, including the Partners AMCs. As the HPC itself acknowledges in the Preliminary Report, there are numerous hospital and physician providers who compete with and serve as fully acceptable alternatives to the Hallmark Health providers for the payers, and the Consent Judgment expressly prohibits Partners from taking discriminatory action in its negotiations for other Partners

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<sup>11</sup> HHS Strategic Planning Materials, 2008.

<sup>12</sup> Standard & Poor's recently affirmed HHS's BBB+ rating but change the outlook from STABLE to DEVELOPING. DEVELOPING is used by S&P to note that if HHS merges with Partners it would be an improvement warranting a potential upgrade whereas failure to consummate the merger with Partners would likely result in a downgrade.

<sup>13</sup> HPC concludes that there will be an increase of \$15.5-\$23 million annual spending over time as a result of the HHS-Partners Transaction.

<sup>14</sup> While the Preliminary Report acknowledges the existence of the Component Contracting remedy, it inexplicably fails to explain why HPC is only "hopeful" that Component Contracting will be an effective constraint on Partners' alleged contracting leverage.

contracting components against a payer that takes advantage of the Component Contracting option. Thus contract termination is a realistic option for a payer faced with demands by Partners for unreasonable rate increases for the Hallmark Health providers, whether it is rate parity for the HHS hospitals with other Partners community hospitals or an increase to “integrated” physician rates for HHPHO physicians. Under the circumstances, and faced with the loss of potentially substantial amounts of revenue, it is difficult to imagine that Partners would have any success in negotiating the “supracompetitive” rate increases for the Hallmark Health providers that the HPC asserts will occur as a result of the Transaction.<sup>15</sup>

Component Contracting as well as the actual terms of Partners’ payer contracts also effectively address the concerns expressed in the Preliminary Report that the Transaction will drive up the region’s physician costs because Partners will employ currently private HHS physicians and seek higher (“integrated”) rates on par with other employed Partners physicians. First, despite the HPC’s asserted “deeper understanding” of the Partners’ payer contracts, these payer contracts either do not allow the automatic physician rate increases that HPC asserts will occur as physicians are changed from “affiliated” to employed (“integrated”) status or they include mechanisms that make any such shift in rate status budget neutral for the payer.<sup>16</sup> These budget neutrality provisions thus effectively negate the impact on overall health care costs of moving Partners Network physicians to higher levels of contracted physician. Second, for those payer contracts that do not allow automatic physician rate shifts, Partners would have to negotiate the rate increases for the HHPHO physicians that the HPC assumes to be an automatic consequence of the Partners acquisition of HHS. As described above, given the acknowledged availability of alternative physician providers, a payer can elect Component Contracting for the Hallmark Health providers and then could reject any unreasonable physician rate increase request, leaving the HHPHO physicians with the choice of either accepting reimbursement on the payer’s terms or being excluded from a contract with the payer.

We also disagree with the Preliminary Report’s criticism that the Consent Judgment does not impose a separate price growth cap for Hallmark Health providers. Since Partners already contracts on behalf of HHS and HHPHO, these providers are included in the price baseline for the Consent Judgment’s price growth cap for the community provider contracting component (“Community Price Growth Cap”). Thus this Community Price Growth Cap effectively guards against excessive rate increases for the HHS hospitals and the HHPHO physicians. The Preliminary Report suggests, however, that absent a separate HHS price growth cap Partners could obtain excessive rate increases for the Hallmark Health providers and permanently increase their price baseline so as to lock in higher costs after expiration of the Consent Judgment. However, as described above, Component Contracting is a powerful deterrent to Partners’ ability to obtain such rate increases. Furthermore, as an additional deterrent to increasing the rates for the Hallmark Health providers, the Community Price Growth Cap requires every rate increase

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<sup>15</sup> When faced with such potential losses in revenue, the incentive that HPC asserts will cause Partners to seek rate increases for its post-Transaction “owned” HHS hospitals will in fact become a disincentive for Partners to pursue such rate increases in this Component Contracting scenario.

<sup>16</sup> For example, for each HHPHO physician who is allocated an “integrated” rate lot, there will be a slightly more than 1.0 reduction in the total number of contracted rate slots available for other Network physicians.

dollar above inflation to be offset by a dollar rate reduction across the rest of the community providers contracting component. Therefore, even if one were to assume that Partners could obtain excessive rate increases for the Hallmark Health providers, a permanently increased baseline for these providers would mean a permanently decreased baseline for other Partners community providers. As a result, the Community Price Growth Cap, like Component Contracting, effectively protects the Massachusetts health care market from excessive price growth for the Hallmark Health providers. A separate rate cap for these providers is simply unnecessary.

#### **IV. Response to HPC Market Concentration and Pricing Power Analysis**

The HPC Preliminary Report does not provide an analysis that is probative of any issue currently under consideration by the appropriate antitrust authorities, whether within the Commonwealth or the Federal Government, or by the Superior Court in Civil Action No. 14-2033-BLS2. The HPC is not an antitrust enforcement agency, and the Cost and Market Impact Review process is not well-suited to performance of an appropriate antitrust analysis. Yet, the HPC repeats in the Preliminary Report the faulty attempts at market share and market power analyses that it first made in its Cost and Market Impact Review of Partners' proposed acquisition of SSH. In both the SSH and HHS Cost and Market Impact Reviews, the HPC structures its analyses in a way that can reliably be expected to produce erroneously high market shares and, therefore, erroneously high market concentration. As a result, any such analyses lead to erroneous predictions of anticompetitive effects from the transaction, without consideration of the facts. The methodologies utilized by the HPC to conduct market share and market power analyses are rejected by all relevant antitrust precedents and guidelines.

##### *1. The Report's Market Analysis is Unreliable Because it is Based on Improper Geographic Market Definition and Ignores Patients' Choices*

In the Preliminary Report, the HPC simply adopts the HHS primary service area ("PSA") as the relevant geographic market for analysis. This analytic shortcut invalidates the remainder of the Preliminary Report's market share and market concentration analysis for two independent (and independently sufficient) reasons.

First, the Preliminary Report's shorthand reliance on PSAs as a proxy for an appropriately defined relevant geographic market has been long recognized as a fundamental analytical error in antitrust cases. In an antitrust case, a properly defined geographic market must be drawn to include all potential suppliers who can readily offer consumers a suitable alternative to the hospital's services; the relevant market is not determined by where a particular hospital's patients typically live or where they have gone for services in the past, but rather where they *could go* to receive services after the merger.<sup>17</sup> For this reason, courts reject the practice, used here by the HPC, of relying on a hospital's service area as a proxy for a properly defined relevant geographic market for antitrust analysis.<sup>18</sup>

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<sup>17</sup> See, e.g., *FTC v. Tenet Health Care Corp.*, 186 F.3d 1045, 1052 (8th Cir. 1999) (explaining the importance of properly defining the relevant geographic market by reference to availability of substitute hospitals).

<sup>18</sup> *Id.* at 1052 ("A service area, however, is not necessarily a merging firm's geographic market for purposes of antitrust analysis"); *Home Health Specialists*, 1994 U.S. Dist. LEXIS 11947, \*4-16 ("There is no basis for inferring

Second, and perhaps more fundamentally, the Preliminary Report’s shorthand substitution of a PSA for the relevant geographic market cannot be the appropriate relevant antitrust geographic market because, as the Preliminary Report states, the provider with the most discharges is “Partners”—yet the Preliminary Report does not mention that a large portion of the 4,478 discharges that it shows for “Partners” are discharges from MGH—a hospital that is not even in the HPC’s alleged geographic market of HHS’s 75% PSA. This is unsupportable under the DOJ-FTC Horizontal Merger Guidelines and all relevant antitrust precedents.<sup>19 20</sup> Furthermore, the Eighth Circuit Court of Appeals has labeled this type of market definition “absurd” because it ignores the reality that patients regularly travel outside of the alleged “market” to receive care at other hospitals.<sup>21</sup> The fact that MGH draws a substantial number of patients from HHS’s PSA proves that the only appropriate geographic market for analysis here is Eastern Massachusetts as a whole. Because the Preliminary Report’s geographic market analysis is flawed, all of the market share, market concentration, and anticompetitive effects analyses that flow from it are similarly flawed.

## 2. *The Consent Judgment Changes Entirely the Outcome of the HHI Market Concentration Analysis*

Even if the HPC had taken the steps necessary to properly define the relevant markets, the HPC uses the Herfindahl-Hirschman Index (“HHI”) antitrust market concentration methodology without any adjustment for or even consideration of the Consent Judgment. Under standard HHI methodology, the market shares of post-acquisition parties are added together and then squared. In the context of payer contracting, this reflects the expected impact of joint contracting. The Consent Judgment’s Component Contracting remedy changes entirely the application and outcome of an HHI market concentration analysis. Component Contracting gives payers the leverage of singling out any particular component to stand on its own in negotiation and expressly prohibits Partners from taking discriminatory action against a payer in the negotiations of one component in response to the payer’s negotiations with another component.

Under Component Contracting, it is inappropriate to apply – as the HPC does – the HHI methodology of adding together merging parties’ share and then squaring the combined number. Component Contracting requires that each of Partners, NSMC and HHS’s market shares be separated rather than combined. To determine the HHI number following the Transaction and following the

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that a service area constitutes a geographic market unless the Plaintiff offers evidence of elasticity of demand and barriers to entry.”).

<sup>19</sup> See, e.g., *Home Health Specialists v. Liberty Health System*, 1994-2 Trade Cas. (CCH) ¶170,699, 1994 U.S. Dist. LEXIS 11947, \*9-10 (E.D. Pa. 1994), *aff’d*, 65 F.3d 162 (3d Cir. 1995) (finding irrelevant a discussion of the proper definition of a service area when the relevant question is what options are available to consumers). Because the HHS PSA does not even include the other merging party in the analysis, that definition cannot be accurate.

<sup>20</sup> See DOJ-FTC Horizontal Merger Guidelines § 4.2 (Geographic Market Definition); see also *Sutter Health System*, 130 F. Supp. 2d at 1125 (“Where a hospital outside of the proposed geographic market draws patients from the same region from which the merging hospitals draw their patients, the hospital located outside the test market is considered a practical alternative to which patients residing in the area of overlap can turn for acute inpatient services.”).

<sup>21</sup> *Tenet Health Care Corp.*, 186 F.3d at 1054.

Consent Judgment, each of these market shares must be *separately* squared and then added into the HHI number. A comparison of pre- and post-Transaction HHI numbers, properly adjusted for the Consent Judgment, would actually show a *decrease* rather than the increase reported by the HPC. Accordingly, the HHI market concentration analysis is either entirely inapplicable to the Transaction under the Consent Judgment or indicative of a decrease in market concentration.

### 3. *The Preliminary Report's Jump from Market Share to Pricing Power is Unsupported*

Finally, we would like to respond to the direct link that the HPC draws between market concentration figures and pricing power. Even if the HPC had taken the steps necessary to properly define the relevant markets, and even if it had appropriately used the HHI market concentration analysis, those shares and figures are only the beginning of an antitrust analysis. Market shares and market concentration figures tell us only what patients *have done in the past*; appropriate antitrust analysis requires determination of what patients *may choose to do in the future*. But the Preliminary Report skips that analytical step, jumping instead from market shares to a prediction of anticompetitive effects, with no discussion at all of potential competitive responses by other providers, by the imposition of downward price pressure by commercial payers, price and TME caps, or by the choices that consumers remain free to make after the Transaction. More specifically, the Preliminary Report makes the following inappropriate attempts at antitrust argument:

#### *A. The Preliminary Report Focuses on Partners' Incentive Rather Than Competition*

After constructing erroneously high market shares for the merging parties, the Preliminary Report states that Partners hospitals have higher prices than non-Partners hospitals and, as a result, that the Transaction will likely result in price increases. In order to do this, the Preliminary Report must *assume* that the acquisition of HHS by Partners will result in some additional incentive to raise prices that does not already exist<sup>22</sup> – even though Partners and HHS are already clinically integrated and contract together in payer negotiations. The Preliminary Report does not cite to any relevant precedent to support its argument that moving from a clinically integrated joint venture to a merged entity increases the incentive to raise prices.

The concept of changed incentives due to Partners “owning revenue,” upon which the Preliminary Report bases its analysis, is not only unsupported, but it is irrelevant. Antitrust theory assumes that a rational seller will raise prices to the extent possible without losing revenue due to customers moving their purchases elsewhere. That desire to raise prices is only problematic if customers have nowhere else to go in order to purchase the product. If customers can choose to

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<sup>22</sup> See, e.g., Preliminary Report, p. 43: “Joint contracting and full financial integration embody different structures and bargaining incentives. For example, Partners does not currently ‘own’ Hallmark’s revenue, and as such does not directly profit if Hallmark’s margins or volume increase. Thus, Partners’ current incentives to negotiate Hallmark’s rates are likely different from Partners’ incentives to negotiate rates for entities with which Partners is fully financially integrated (e.g., hospitals that it owns), where Partners would directly profit from increased volume or margins. Upon full financial ownership of Hallmark, Partners would likely have increased alignment of both ability and incentives to command higher rates for Hallmark.”

purchase the product from another seller, then the merged firm will be unable to profitably raise prices.<sup>23</sup>

If Partners did in fact raise prices for services at HHS hospitals post-merger, both payers and patients have many other non-Partners hospitals to turn to for care. The Preliminary Report lists Lahey, Beth Israel, Tufts, Mount Auburn, Cambridge Health Alliance, and Winchester Hospitals as comparable or within the HHS relevant geographic market.<sup>24</sup> Together, these hospitals provide more than 50% of the hospital discharges in the HHS PSA. The Preliminary Report fails to acknowledge that payers could simply steer patients toward these nearby competing hospitals.

*B. The Preliminary Report Ignores Payers' Ability to Defeat a Price Increase through Patient Steering*

The Preliminary Report does not discuss the ability of payers to avoid or defeat any future attempted price increase by a combined Partners/HHS through the use of mechanisms that steer patients to lower cost providers, which include not only tiered and limited network plan designs, but also high deductible and defined contribution plans, and risk-sharing arrangements including total medical expense ("TME") managed care plans. Massachusetts payers are identifying with great specificity lower-cost providers and assembling/reassembling them in their networks, and also are incentivizing consumers and referring providers to make use of them.<sup>25</sup> The four major commercial payers in Massachusetts have all testified under oath to the Commonwealth that they are moving away from fee-for-service plans in favor of tiered, limited, and risk-based plan designs. 56% of HMO and PPO enrollees in Massachusetts are in risk-based, tiered, limited, or tiered and risk-based plans. Nevertheless, the Preliminary Report, without reason or explanation, fails to acknowledge the significance of this trend.

*C. The Preliminary Report Mischaracterizes the Empirical Support for Its Assumption That Increased Concentration Results in Higher Prices*

The Preliminary Report relies on a *single* study extracted from a *single* 2006 review article that shows a positive correlation between price and concentration changes as support for its market power and anticompetitive pricing assessment that the HPC asserts from this Transaction.<sup>26</sup> The referenced

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<sup>23</sup> See, e.g., *Tenet Health Care*, 186 F.3d at 1050, 1053-1054 (finding that a theoretical price increase would be thwarted by patient switching); *Sutter Health Systems*, 130 F. Supp. 2d at 1129-1132.

<sup>24</sup> Preliminary Report, pp. 6 and 20.

<sup>25</sup> Empirical research shows that these measures are in fact effective at changing patient behavior through steering and, as a result, effective at reducing provider prices. See, e.g., James C. Robinson and Timothy T. Brown, "Increases in Consumer Cost Sharing Redirect Patient Volumes and Reduce Hospital Prices for Orthopedic Surgery," *Health Affairs*, 32, no. 8 (2013):1392-1397.

<sup>26</sup> Preliminary Report, n.172 (citing William Vogt & Robert Town, *How Has Hospital Consolidation Affected the Price and Quality of Hospital Care?* Robert Wood Johnson Foundation Synthesis Project Report No. 9 (2006). The majority of studies reported in this survey article are based on data from the 1980s or mid-1990s. As noted elsewhere in this response, the structural change estimated by the HPC (e.g., the change in concentration and the level of post-merger concentration) were conducted using the PSA which is not a relevant market. Moreover, as

Town and Vogt (2006) study, however, summarizes the results of several price-concentration studies that include statistically significant positive relationships, statistically significant negative relationships, and statistically insignificant relationships between price and concentration. Thus, the Town and Vogt study does not support a conclusion there is any systematic relationship between price and concentration, contrary to the single study within it upon which the Preliminary Report relies.<sup>27</sup> More recent studies find similar results – for example, in a more recently published study of which William Vogt was a co-author – the authors found no statistically significant relationship between change in concentration and price using a large sample of commercial claims data across a broad range of geographies.<sup>28</sup> The Preliminary Report does not reference this study or other research in the field or note any of the fundamental assumptions involved in interpreting and relying on the results of such studies.<sup>29</sup>

To summarize our response to the HPC’s market concentration and pricing power analysis, (1) the Preliminary Report’s market analysis is unreliable because it is based on improper geographic market definition and ignores patients’ choices; (2) the Consent Judgment changes entirely the outcome of the HHI analysis; and (3) the Preliminary Report’s jump from market share to pricing power is unsupported. The HPC Preliminary Report does not provide an analysis that is probative of any issue currently under consideration by the appropriate antitrust authorities, whether within the Commonwealth or the Federal Government, or by the Massachusetts Superior Court.

#### **V. Investments in Inpatient and Outpatient Behavioral Health will Enhance Access for Vulnerable Populations**

The HPC has recognized in its cost trend reports that “[t]reatment for behavioral health conditions, encompassing mental illness and substance abuse and/or dependence, is a major factor in the health of the population and a significant driver of health care costs.”<sup>30</sup> The HPC notes that “a portion of the higher spending for people with behavioral health conditions occurs in high intensity settings of care, including inpatient care and emergency room admissions. Research shows that some of the utilization of these high intensity services may be avoidable by altering the current ‘fail up’ dynamic of the system, in which people only receive treatment when their condition is sufficiently impaired that they need intensive services, rather than receiving more timely intervention. This suggests an

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discussed herein, there are many more factors involved in an antitrust analysis and assessment concerning market power and potential pricing effects other than change in share.

<sup>27</sup> In addition, an updated version of the Vogt and Town study summarizes similar types of studies and its findings also show no consistent quantified relationship between changes in market concentration and observed hospital price increases across studies. Martin Gaynor and Robert Town, *The Impact of Hospital Consolidation – Update*, THE SYNTHESIS PROJECT (June 2012), available online at <http://www.rwjf.org/en/research-publications/find-rwjf-research/2012/06/the-impact-of-hospital-consolidation.html>.

<sup>28</sup> Moriya AS, Vogt WB and Gaynor M. Hospital prices and market structure in the hospital and insurance industries. *Health Econ Policy Law*. 2010;5(4):459-79. This study uses commercial claims data for 2001-2003.

<sup>29</sup> For a summary and review of the literature, for example, see, Guerin-Calvert ME and Maki JA. Hospital realignment: mergers offer significant patient and community benefits. Washington (DC): FTI Consulting; 2014 Jan. for a review of price-concentration literature.

<sup>30</sup> *2013 Cost Trends Report, July 2014 Supplement*, Health Policy Commission, p. 16.

opportunity for improved care at lower cost through access to appropriate treatment earlier in less intensive settings.”<sup>31</sup>

We appreciate the HPC’s statement that “the NSMC and HHS hospitals are important providers of behavioral health services to their local communities.”<sup>32</sup> We take this responsibility for caring for people with mental health and/or substance abuse disorders very seriously, and, as was noted in Partners’ SSH Response, we have continued to build upon our commitment to improving access to these much-needed services. Few of our competitors are stepping forth to meet this challenge. Given the acknowledged need for both behavioral health services and appropriate settings for the delivery of those services, we are proposing a substantial reorganization and investment in behavioral health that will both increase inpatient capacity to alleviate currently unmet demand for inpatient psychiatry beds and expand outpatient capacity to reduce hospitalizations and readmissions and shorten lengths of stay, all of which improves care for patients, enhances their quality of life, and lowers overall health care costs.

Therefore, we would like to clarify and address several issues and questions from the Preliminary Report related to the creation of the proposed Center of Excellence in Psychiatry and Behavioral Health at Union. This Center will substantially improve behavioral health care for patients residing throughout the Northern Corridor, not only on the inpatient side but also with a focus on dispersed community-based services. The Center of Excellence will enable us to:

- Improve access to care by ensuring the preservation of licensed inpatient beds at MWH that will provide medical psychiatric care for the local community, increasing the total number of available psychiatric beds, and improving access to available beds by better coordination and the provision of “cross coverage” of staff for different units as needed based on volume and acuity;
- Maintain Union as a thriving and viable provider of community services;
- Improve our ability to provide expert care to subpopulations with specialty needs by having coordinated units with different areas of specialization and closer coordination with MGH specialty programs;
- Expand our capacity to provide Electroconvulsive Treatment (ECT) and neurotherapeutics to patients who need it;
- Increase and support existing community-based outpatient services and sub-acute services throughout the local communities; and
- Enhance our ability to recruit and retain talented and dedicated staff.

The inpatient Center of Excellence for Behavioral Health will have a pediatric unit and five adult units – one focused on young adults, one unit for older adults, one for dual diagnosis patients, one for higher acuity patients, and a dementia unit for geriatric patients. This will accommodate the current

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<sup>31</sup> Ibid., p. 20.

<sup>32</sup> Preliminary Report, p. 34.

psychiatric beds at LMH and at Salem, and will potentially add much-needed new capacity with the addition of up to 17 new beds.

We want to address the concerns expressed in the Preliminary Report about the commuting distance for current HHS patients to receive their inpatient care at the new Center of Excellence at Union. The lack of psychiatric inpatient resources statewide makes it very difficult for patients to obtain behavioral health care in their local communities, and many, if not most, must travel some distance to obtain needed care. Emergency Departments statewide are overwhelmed with patients who have psychiatric and substance use problems, and patients are generally referred to any bed that is available in the region. Despite the combined resources of NSMC, MGH, and HHS, patients from the communities they serve are often placed outside the region due to capacity constraints. However, inpatient care is only the most acute and short-term piece of the continuum of psychiatric care, and can be well served by a coordinated, collaborative approach. Furthermore, the benefits of collaboration, consolidation, and linkage to an AMC as described above will actually improve access to this most acute level of care, and will help to assure that the inpatient stay is best able to meet the specific needs of any given patient.

In addition, this plan looks beyond inpatient care to expand and enhance community-based outpatient services for behavioral health care in the Northern Corridor. Enhanced access to outpatient services will help to avoid the need for inpatient hospitalization for many patients, and will improve the linkage to services for patients who are discharged from an Emergency Department or from inpatient psychiatric care. Outpatient services will primarily remain in the local communities, with expansion of certain services at the Center for Excellence in close collaboration with the MGH Department of Psychiatry. Specifically, the following outpatient programs are planned for the Center of Excellence:

- Expanded Partial Hospitalization Program for both adults and adolescents;
- Intensive outpatient programs for Pedi/Adolescent and Adults;
- Expansion of capacity for Pediatric and Geriatric (70+ year old) outpatient services;
- Continued delivery of integrated mental health services in the NSPG Primary Care and specialty practice on campus.

The plan for the Center for Excellence also anticipates that outpatient programs and services will remain or be enhanced throughout the community. The following outpatient services will remain at Salem:

- Expanded access to adult and pediatric mental health and substance abuse outpatient services. Pediatric services include continued access to the Massachusetts Child Psychiatry Access Program (“MCPAP”) for pediatricians in the community;
- “Urgent care” programs to facilitate referrals from PCP offices, Emergency Departments, and upon discharge from psychiatric inpatient care;
- Expanded access to Neuropsychology evaluation for patients who need this service;
- Expansion of the “Patient Navigator” program, which provides community-based outreach, care management, support, and linkage for services to patients at high risk for relapse or hospitalization;

- Psychiatric ED services for rapid and comprehensive assessment and disposition;
- Close coordination of outpatient care with primary care practices to enhance integration and meet the needs of patients with medical and psychiatric co-morbidities.

In addition, HHS will retain and enhance the following outpatient services for the local communities that it serves:

- Outpatient adult psychiatric and psychopharmacological services;
- Geriatric and adult intensive outpatient services;
- The Center for Healthy Minds – an outpatient evaluation and treatment program for older adults with psychiatric and cognitive concerns;
- Nursing home consultation services;
- Crisis team; and
- Integration of behavioral health and primary care services.

We would also like to respond to the HPC’s question about “why the NSMC-Union campus, which is undergoing perhaps the most significant transformation in becoming a specialized behavioral health center of excellence, is anticipated to receive the smallest investment of the four hospital campuses.”<sup>33</sup> First, we are planning for a renovation of the existing structure, as opposed to new construction, because the Center of Excellence is expected to fit within the footprint of the existing building. This will, therefore, be a less expensive project to begin with. Furthermore, the level of infrastructure required for a behavioral health facility is vastly different than that required for a technology-intensive acute hospital that needs an ICU, operating rooms, acute inpatient beds, etc., or for the entirely new medical office building on the LMH campus, especially since we anticipate that patients with co-occurring medical and psychiatric needs will be served at MWH. These factors make it possible for the Union conversion to be accomplished at a lower capital cost than will be required for the reconfiguration and infrastructure changes at the other three campuses (MWH, LMH, and Salem).

## **VI. Partners Projected Savings and Benefits from Population Health Management**

In its Preliminary Report, the HPC “recognizes the potential for PHM to drive efficiencies and facilitate high quality care delivery”<sup>34</sup> but states that Partners and HHS do not provide concrete implementation plans including measurable goals and other evidence-based benchmarks. We recognize and share the HPC’s desire for an evidence-based approach, but also must put this in the proper context of the evolving field of population health management. Partners has chosen to take a leadership role in investing funding and resources to implement PHM throughout its system, based on the consensus among national health policy leaders and across the health care industry that PHM is a key path forward to containing health care costs and achieving quality improvements. Following the path of alternative payment methodologies that has been promoted by policymakers through Chapter 224 and other vehicles, PHM is new and evolving. Therefore, by definition there is limited history from which to draw evidence-based data. We urge the HPC to balance the need for sound data against this reality, and not

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<sup>33</sup> Ibid., p. 15.

<sup>34</sup> Ibid., p. 58.

stand in the way of this important response to today's pressing health care public policy needs. Partners fully stands by its commitment to PHM.

We would also like to note that in preparing the Preliminary Report, the HPC reviewed Partners' early plans for PHM in the Transaction and the Northern Corridor. Implementation of the Transaction is a large and multi-faceted undertaking, with initial focus appropriately placed on "big picture" fundamentals of sizing facility, infrastructure and capital investment. The lack of granular detail regarding Partners' PHM programs for the Transactions is not indicative of any lesser commitment to this important care delivery initiative. It is rather a matter of timing and, in fact, a reflection of Partners' approach of investing due time for careful planning and thoughtful preparation of an implementation plan.

#### *1. Updated PHM Implementation Plans for the Transaction*

Since its submission to the HPC last year of a Notice of Material Change for the Transaction, Partners has progressed in its PHM planning and shares in Appendix B to this Response specifics regarding its platform of PHM programming initiatives. Appendix B is a specific listing of the 20 programs that, as further discussed in Section 2 below, Partners has identified as validated in national health delivery science literature for achieving the quality and cost management goals of PHM. Many of these programs are further validated through actual savings achieved in Partners local pilot programs. These programs include new care models in primary care, ambulatory specialty care, post-acute care, and patient education and engagement. Many are focused on keeping care within the community and closest to where the patient resides, while allowing efficient access to specialist providers when necessary. Partners recognizes that keeping appropriate care within the community will require an investment in the existing infrastructure at HHS, which will be facilitated by the Transaction. As a Partners system entity following the Transaction, HHS will gain access to this full slate of PHM programming. Without the Transaction, HHS will not have the capital to implement this comprehensive PHM. Furthermore, HHS has only a limited number of physicians involved in the Partners Pioneer ACO, does not have adequate resources invest in the requisite PHM infrastructure, and lacks the ability to execute on risk contracts, which PHM will facilitate. The proven PHM strategies in Appendix B will be targeted at chronic disease that is prevalent in the Northern Corridor, with heart failure, diabetes, behavioral health, pediatrics, and preventative services such as colonoscopy, mammography and cervical screening currently under consideration.

#### *2. Projected Savings from PHM Plans for the Transaction*

At the time of submission of the Notice of Material Change for the Transaction, Partners was using a proxy methodology to estimate inpatient admissions savings potential from implementation of PHM in the Northern Corridor. The potential for savings demonstrated by this proxy methodology provided sufficient basis for internal decision-making regarding allocation of resources to the development of PHM. The proxy methodology was not intended to be a comprehensive analysis of savings from PHM and the HPC's critiques of the proxy as flawed are misplaced.

Since its submission of the Notice of Material Change last year, Partners has continued to develop its full slate of evidence-backed PHM programming and a methodology to estimate PHM savings that applies a bottoms-up approach on a program-by-program basis. Each program's savings opportunity has been evaluated by examining internal patient data to size the target patient population and, where possible, interviewing Partners experts leading smaller scale 'pilot' PHM programs to test assumptions based on real program experience such as the Palliative Care, telemonitoring for Heart Failure, Diabetes, and Hypertensive patients. Because the field of PHM is relatively new, quantitative cost savings data continues to build but exists for only some of Partners' PHM programs. For PHM programs where Partners has not yet sufficient experience to provide effect sizes, Partners and HHS relied on national experts and research published in reputable journals demonstrating evidence of programmatic impact and adapted assumptions for our organization (See Appendix B).

Based on the methodology above, Partners has developed a PMPM savings for PHM by program. To estimate the PHM savings resulting from the Transaction, the Partners PMPM savings by program can be applied to the primary care lives managed by HHS, assuming current HHS and net new lives resulting from primary care growth. Based on this calculation, Partners estimates that the Transaction will yield an average of \$21 million annual savings (over each of the next 5 years) in PHM in the commercial and Medicare patient populations.

We note that this estimate exceeds the estimate of savings under the Partners proxy methodology examined by the HPC. This is because this methodology is more inclusive of savings opportunities beyond the originally submitted methodology, which only relied upon reduction in inpatient admissions per 1000. This projected savings reflects the fact that the breadth of Partners PHM programs will significantly reduce Inpatient admissions and readmissions, *as well as* ED visits, observations, post acute costs, specialty care visits, radiology tests, laboratory tests, and primary care office visits (replaced by virtual visits).

Figure 1 below is an aggregated summary of PHM savings applying this methodology to the HHS population over a period of five years post-Transaction, 2016-2020. Figure 2 is a breakout of savings by Partners PHM programs, built from actual savings generated from Partners pilot programs. It reflects savings only for those PHM programs for which there are demonstrated savings based on primary care, specialty program and care continuum programs in pilot form and thus does not include all 20 programs listed in Appendix B that are part of Partners' PHM programming. Both Figures show an aggregated average annual savings from the Transaction of \$20.9 million per year.

**Figure 1: Estimated PHS PHM Savings for HHS Population**

<b>Estimated PHS PHM Savings</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Avg/Year (5-Yr)</b>
Primary Care	\$12.11	\$16.49	\$16.82	\$17.16	\$17.50	\$16.02
Specialty Care	\$0.20	\$0.38	\$0.39	\$0.40	\$0.41	\$0.36
<u>Care Continuum</u>	<u>\$2.88</u>	<u>\$4.59</u>	<u>\$4.68</u>	<u>\$4.77</u>	<u>\$4.87</u>	<u>\$4.36</u>
PMPM	\$15.19	\$21.46	\$21.89	\$22.33	\$22.78	\$20.73
PMPY	\$182.28	\$257.57	\$262.72	\$267.98	\$273.33	\$248.78
<b>Est. PHM Savings to HHS Population</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Avg/Year (5-Yr)</b>
Primary Care Growth	\$1,421,818	\$4,520,343	\$7,172,277	\$8,674,357	\$9,061,045	\$6,169,968
<u>Existing Lives</u>	<u>\$10,821,537</u>	<u>\$15,290,928</u>	<u>\$15,596,747</u>	<u>\$15,908,682</u>	<u>\$16,226,856</u>	<u>\$14,768,950</u>
Total HHS Savings	\$12,243,355	\$19,811,271	\$22,769,024	\$24,583,039	\$25,287,901	\$20,938,918

**Figure 2: Projected Population Health Management Program Savings**

Care Setting	PHM Program	Overview	Expected Areas of TME Reduction	Success to Date	Modeled Annual Savings Applied to HHS Population (5 Yr Avg)
Primary Care	<b>Patient Centered Medical Home (PCMH)</b>	Practice redesign to provide team-based primary care led by a personal physician, emphasizing pro-activity and coordination of services	Inpatient admissions, ED visits, imaging, and mental health visits	PCMH practices demonstrated 13% lower PMPM for commercial patients and 30% lower PMPM for ACO (Medicare) patients and higher quality scores when compared to non-PCMH practices.	\$5.6M
	<b>Integrated Care Management Program (iCMP)</b>	Service coordination and management of medically complex patients by a practice-embedded care team led by a nurse care manager collaborating with a physician	Inpatient admissions, ED visits, imaging, and prescription drug costs	Pioneer ACO savings were \$14.4M in year 1, and \$3.2M in year 2, or an average of 1.7% (3% in year 1, 0.4% in year 2) savings from national benchmark	\$3.5M
	<b>Palliative Care</b>	Development of services that support transition to home-based palliative care nurses for patients in last 6 months of life	Inpatient admissions, ED visits, and laboratory testing	No data available yet	\$1.2M (modeled estimates based on published research)
	<b>Mental Health Integration</b>	Integrating behavioral health specialists and social workers into PCMHs reinforced by mental health screening, patient self-service, and curbside consults	Inpatient admissions, ED visits, observation stays, and outpatient psychiatric visits	No data available yet	\$7.1M (modeled estimates based on published research)
Specialty Care	<b>Active Referral Management</b>	Evaluation of specialist visit referral by a physician reviewer for appropriateness, urgency, alternate recommendations, and pre-visit planning	Unnecessary specialist office visits	Since program launch in January 2014, we have avoided visits for 20% of referred patients	\$165K (modeled estimates based on pilot program and conservative assumptions related to HHS implementation)
	<b>Procedure Decision Support (appropriateness) and Patient Reported Outcomes</b>	Decision support tool that organizes critical patient information in order to assess whether or not a proposed procedure meets clinical guidelines.	Reduction in inappropriate procedures	Clinical appropriateness documented for over 2,500 unique procedures. Approx. 1% of procedures avoided.	N/A

	<b>Virtual Visits</b>	Replacement of a portion of office-based follow-up visits in primary care and select medical sub-specialties with video (synchronous) and email (asynchronous) visits.	Follow-up primary care and select sub-specialty visits	From program launch, 2500 asynchronous visits replaced face to face visits for savings of \$615K in savings. 2,000 synchronous visits replaced face-to-face visits resulting in \$492K in savings.	\$197K (may be understated because this reflects savings from synchronous visits only)
<b>Care Continuum</b>	<b>Skilled Nursing Facility (SNF) Network and Waiver</b>	Development of a network of high-quality SNFs to provide integrated care and between hospitals, SNFs, and the community.	SNF length of stay, readmissions	PHS SNF network has reduced SNF LOS by approximately 2 days (approx. savings \$1,000/episode). We continue to collect data on the impact of SNF related hospital readmissions.	\$200K
		Waiver of 3-day inpatient hospitalization prior to SNF coverage	Unnecessary hospitalizations	Since the program launch in April 2014, 42 patients have avoided hospitalization	\$164K
	<b>Mobile Observation Unit</b>	Within four hours of an ED or ED Observation Unit discharge, home visitation by a nurse practitioner	Inpatient admissions and observation stays	In 8 months of operation, PHS has admitted 120 patients, avoiding approximately 70 hospital admissions	\$1.7M
	<b>CHF Remote Monitoring</b>	Two-month remote monitoring program for patients admitted for CHF upon discharge	CHF-related readmissions	In the 9 month period (10/1/13-6/30/13) 1,246 unique patients (138 patients per month)	\$401K
	<b>DM and HTN Remote Monitoring</b>	Three-month remote monitoring program for patients with poorly controlled diabetes and/or hypertension within advanced PCMH practices	Office visits and costs associated with poorly controlled DM and HTN	Since programs launched, we enrolled 3,122 patients, accounting for \$1.7M in savings from reduction in office and emergency visits.	\$694K
<b>Estimated PHM Savings</b>					<b>\$20.9M</b>

## VII. Response to HPC Concerns Regarding Cost Impacts of the Transaction

### 1. MGH Rates at Rationalized Facilities

The HPC incorrectly assumed that following the Transaction, Partners will convert HHS facilities to MGH licensing and subsequently bill services provided at the former LMH campus at higher MGH academic rates. As was previously communicated to the HPC, Partners plans to bill for services at the converted LMH campus at community hospital rates. Charging MGH rates at the converted LMH facility would be entirely inconsistent with the central goal of a key cost-saving feature of the Transaction, i.e. shifting medical care from AMCs to the community. It would, furthermore, be inconsistent with our practice at Danvers, which is licensed by MGH but bills at community rates, and at Foxborough, which is licensed by BWH and bills at community rates, and inconsistent with our practice at Faulkner, which is a subsidiary of Brigham and Women's Health Care ("BWHC") but bills at community rates. We anticipate that many services at LMH will be delivered by HHS physicians. We acknowledge, however, that care will also be provided by Massachusetts General Physicians Organization ("MGPO") physicians, as some MGPO physicians will be placed in the community to establish an AMC presence and enhance the quality of care, which are among the benefits of the Transaction. The professional component of those services will likely be billed at academic rates. However, the ancillaries and technical component of patient visits, which are a much larger part of the cost of outpatient care, will be billed at community rates, which more than offsets any modest cost increase impact from the AMC physician component.

### 2. Partners' Projected Savings from Care Redirection

A key benefit of the Transaction is that expansion of clinical services in the community will enable Partners and HHS to redirect appropriate cases that would have been treated at MGH back to a HHS community-based facility. Because of the lower rates paid by payers for services at these facilities, as described above, care redirection generates savings in health care costs. Partners has a successful track record in care redirection. Since 2009, health care spending associated with inpatient care at BWH has been reduced by approximately \$83 million through an initiative to shift secondary care volume from BWH to the Faulkner Hospital, a Partners community hospital. In the HHS Transaction, we estimate that care redirection will generate savings to both payers and patients of \$11.8M to \$24.7M per year.

In the Preliminary Report, the HPC critiques these projected savings estimates based on an assumption that care redirection is realistic only for commercial patients with HHPHO PCPs. Using this narrow population, the HPC recalculates and reduces Partners' projected \$1.9M to \$4.7M inpatient savings potential from care redirection to \$280K to \$700K.<sup>35</sup> Similarly, the HPC reduces Partners' projected \$9.9M to \$20M outpatient savings potential to \$900K to \$1.8M.<sup>36</sup> We strongly disagree with HPC's assumptions and resulting reductions in projected care redirection cost savings. First, Partners projected cost savings are based on the population of patients receiving care at the MGH and living within the HHS service area. Patients with MGPO PCPs make up the bulk of MGH patient volume from

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<sup>35</sup> Ibid., p.55.

<sup>36</sup> Ibid., p. 56.

the HHS service area (41% of inpatient admissions and 65% of outpatient volume), while HHPHO patients are approximately 7% of the total MGH inpatient admissions from the HHS service area and 3% of total MGH outpatient volume. It is the parties' intention to implement care redirection of MGPO patients to the rationalized HHS facilities, and we fully expect that MGPO primary and specialty care patients living in HHS's service area will prefer to obtain some portion of their care (e.g. outpatient cancer care) at a facility overseen by MGH that is located closer to their home. Second, the HPC's modified savings potentials omit entirely government payer patients based on the assumption that significant price variation is a feature only of the commercial payer market. This assumption ignores shared savings potential and the fact that AMCs receive enhanced Medicare and Medicaid payments due to higher CMI (Medicaid) and Indirect Medical Education adjustments, among other factors. For all these reasons, the HPC's modified savings projections fall far short of the realistic potential for savings that will result from the Transaction's care redirection initiative.

### *3. Criteria for Development of Service Line Savings*

The Preliminary Report raises questions about Partners and HHS's criteria for developing service line care redirection savings and suggests that service lines were selected on the basis of higher margins. This is not true. Partners did not consider margin in selecting service line savings. The guiding principles of the joint physician planning meetings that drove the decision-making for shifting care to the community were: (1) to improve care for patients in the Northern Corridor communities through better access and increased quality; (2) to achieve success in PHM through better coordination of care; and (3) to reduce cost trend through operational efficiencies, site of care rationalization, duplicative capital avoidance and appropriate capital investment. These efforts included understanding the best alignment of services in the community and the accompanying impact on the existing facilities in the market.

For inpatient services, Partners and HHS first focused on short stay inpatient care that could be appropriately shifted to the community from a clinical standpoint. These cases were identified and approved by physicians at both institutions. Given that the patients whose care would be shifted were already from the service area, the starting assumption was that these shifts in sites of care would offer greater convenience for patients and their families and reduce the overall cost of care. The service lines of focus were chosen based on the clinical appropriateness of shifting cases, the need at HHS for increased capacity and services, and the ability to generate savings from rationalization.

Current operations at HHS include two full service Emergency Departments. Using current data for the patients in the service area surrounding these Emergency Departments, Partners and HHS examined the number of low acuity patients who might be best served in urgent care. At the HHS facilities, up to 65% of the ED cases seen were lower acuity (ESI level 4 or 5). Partners and HHS believe that, in the long term, it would be in the best interest of these patients to offer urgent care services at LMH, a service with considerably lower wait times and considerably lower patient and payer costs. The reduction of ED volume was compared to projected future demand for emergency services, and the appropriate bed need was established by sizing the future offering based on the perceived future need of the community.

The Primary Care growth efforts were focused on creating capacity in the service areas of greatest need or where existing practices had exhausted their capacity to support access and PHM. PCP supply and PCP need in each zip code were used to understand where gaps and/or need existed.

Partners and HHS anticipate that future evaluations regarding the community need for services would begin with a similar analytic approach, with an evaluation of the local demographics, clinical needs of the population, the available capacity, the most appropriate site for the delivery of care, and the potential for offering the needed services in an appropriate, lower cost setting. These evaluations would also include input from clinical leadership as well as other clinical staff (for example, an evaluation of the need for an Emergency Department would likely include input not only from emergency physicians but also from local Emergency Medical Technicians), and a process would be developed to consult and confer with other stakeholders as appropriate, depending on the proposed area under discussion. A similar approach would be used in evaluating and planning for patient and family transportation needs and developing specific plans to ensure continuity of care.

#### *4. Response to HPC's Projected Utilization Shifts*

Partners and HHS also would like to respond to HPC's assertion that the Transaction will result in overall utilization shifts that will increase the health care spending baseline in the Northern Corridor. The HPC states that existing patient volume at lower-cost non-Partners competitors will shift to HHS community facilities, resulting in increased health care costs that exceed any savings due to redirection of care from MGH to HHS community facilities. Without explanation, the Preliminary Report states that HPC's modeling shows that 41 percent of care at the rationalized HHS facilities will come from non-Partners AMCs and 59 percent of care will come from non-Partners community hospitals.<sup>37</sup> The Preliminary Report further states that there will be 0% net change to MGH volume resulting from care redirection because lower-cost competitor volume would shift to and replace the redirected care at the MGH. These are flawed assumptions.

First, the underlying econometric modeling used by the HPC here is based on historical patient discharge data and prices. At most, the HPC model looking back at historical data demonstrates that there is material benefit to being part of Partners. According to the HPC's model, patients perceive or realize greater benefits from Partners' hospitals. This is consistent with HPC findings that Partners AMCs and community hospitals have quality and characteristics above state and national benchmarks and that Partners makes significant investments to achieve those goals. This conclusion suggests that the HPC should weigh even more heavily the likely quality benefits for the Northern Corridor that would accrue from the Transaction.

Second, the HPC misappropriates this modeling to predict actual patient shifts going forward. It is pure speculation to use this untested model to hypothesize that there will actually be substantial shifts of patients from other hospitals to HHS or to MGH once HHS becomes part of Partners or once patients are diverted from MGH to the combined community hospital facilities of Partners in the Northern Corridor. This bears no relationship to the reality of what other hospitals are doing and how

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<sup>37</sup> Ibid., p. 54.

they could respond, and it is unsound economics and bad policy to *assume* from these unfounded theoretical “predictions” that patients would actually shift and costs will actually increase. But if they do, the high risk patients, for example, will be managed more effectively, and the facilities and services at the Partners facilities would reflect the enhanced services and care described above.

Finally, new volume moving to lower-priced HHS from higher-priced non-Partners AMCs should be a benefit of the Transaction as it would result in lower spending. Furthermore, as the HPC acknowledges, new volume at HHS from non-Partners community hospitals – were that to occur in response to perceived and actual improvements in care and services – would likely be cost-neutral given HHS’s current rates, which are near average for its region.<sup>38</sup> Finally, in recent years, volume at Partners AMCs has shifted to a higher proportion coming from out of state vs. MA. We expect this trend to continue. Therefore, new volume at MGH is not expected to come from local sources, but rather is expected to be higher acuity care provided to patients from currently targeted national and international markets, which is a positive for the local economy.

In sum, there is no basis for the HPC’s assertions that health care costs in the Northern Corridor will rise as a result of patient utilization shifts from non-Partners provider systems to rationalized Partners and HHS facilities in the community.

#### **VIII. Conclusion: The Transaction Is Necessary for Significant Consumer and Community Benefits That Should Be Included in the Overall Assessment of the Transaction and Supported**

In this response to the Preliminary Report, we believe that we have answered the HPC’s questions, conclusions, and analyses, and provided additional detail on implementation plans and certain other aspects of the Transaction. We urge the HPC’s consideration and inclusion of the specific points in our response in its Final Report on the Transaction.

More importantly, we urge the HPC to move past a limited evaluation of the Transaction that focuses on price and cost impact projections built on flawed modeling, assumptions and past data, and instead take a global view that considers the substantial and real benefits that would not occur without the Transaction. A complete evaluation should fully reflect the consumer and community benefits created by the Transaction in improved services and patient care, quality, and efficiency. These are essential components of the economic analysis of mergers<sup>39</sup> and represent important consumer welfare benefits that HHS cannot achieve without the Transaction.

A full evaluation of the Transaction should consider the many efficiencies it will create, including operational savings that enable care to be provided at lower cost, enhanced investments in financial stability, facilities, services, and technologies, and transformative realignment that makes more effective use of existing facilities. Any such evaluation should also give significant weight to clinical quality

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<sup>38</sup> Ibid., p. 22.

<sup>39</sup> Benefits such as quality can be incorporated into merger analysis and are a fundamental part of assessing the overall consumer welfare effects of mergers. See, Willig, Robert D., *Unilateral Competitive Effects of Mergers: Upward Pricing Pressure, Product Quality, and Other Extensions* 39 REV. INDUS. ORG. 19 (2011).

improvements that enhance the life and health of patients.<sup>40</sup> The HPC recognizes that “differences in the parties’ performance across quality measures indicate that there should be opportunities for [HHS] to improve its quality.”<sup>41</sup> Though difficult to quantify with a dollar value, improvements in the health and lives of patients simply cannot be overlooked in any full evaluation of this Transaction.<sup>42</sup> We note that the HPC implicitly recognizes that the higher quality of the services that would be provided post-Transaction could cause more patients to choose HHS after it is integrated into Partners over the many other hospitals identified as alternatives by the HPC (these alternatives include Lahey, Winchester, Beverly, and BIDMC).<sup>43</sup> Oddly, the HPC counts this as a negative, because those patients would be lost by these competitors. This is entirely inconsistent with healthcare competition policy, economic literature and modeling used for assessing demand. Moreover, it ignores the fact that HHS’ competitor hospitals are seeking to attract patients and have every ability to respond by also seeking to improve their services, which, in turn, creates even more benefit to patients.<sup>44</sup> We urge the HPC to count improved quality for the patient as a positive – a consumer benefit of the Transaction – and conduct a full evaluation of the consumer and community benefits of the Transaction.

Improved quality, as well as better services, patient care, and efficiency for the HHS community and patient populations (commercial, Medicare, and Medicaid) will flow from the Transaction initiatives.<sup>45</sup> The Transaction initiatives represent investment in the kinds of major care delivery system

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<sup>40</sup> Superior clinical quality of one of the merging hospitals, economies of scale, and increased financial resources are identified as three potential sources of improvements in quality of care in Romano, P.S. and Balan, D.J. (2011). These improvements in clinical quality are very likely to result from the HHS transaction. A focus on potential post-merger procompetitive, consumer welfare enhancing, quality improvements is not unique to hospital markets. Willig (2011) shows that an accurate measure of consumer welfare and changes in consumer welfare from horizontal mergers must appropriately account for changes in quality as well as price. These principles have been applied to the evaluation of airline mergers, for example. (See, e.g., Peters (2006), Heyer et. al. (2009), and Israel et. al. (2013).)

<sup>41</sup> Preliminary Report, p. 65.

<sup>42</sup> Improvement in clinical quality is an important factor in evaluating the welfare effects of prospective hospital mergers because even modest improvements can yield important benefits for consumers. For example, a recent paper by economists at the FTC noted: “In addition to the effect on price, the analysis of hospital mergers also requires close attention to likely effects on quality, particularly clinical quality (as it has been defined by the Institute of Medicine and the World Health Organization), as distinct from hospital amenities. As stressed by Town (2011), life and health are very valuable, *so even modest improvements in clinical quality* may redeem otherwise problematic hospital mergers. For this reason, well-supported claims regarding clinical quality tend to be given more weight than other claims of pro-competitive merger effects. Farrell (2011). (Emphasis added.)

<sup>43</sup> Preliminary Report, n. 192, p. 53. The HPC notes that it used econometric modeling to identify a “Partners effect,” a measure of the likelihood of patient choice of a Partners versus non-Partners hospital. This “Partners effect” reflects patients choosing Partners hospital for higher quality care – better outcomes, better service, or other intangible benefits.

<sup>44</sup> Indeed, Beth Israel, Lahey, and Steward among others are expanding the number of “owned” or very closely affiliated community hospitals and physician groups to realign health care delivery using similar models to that initiated by Partners almost a decade ago.

<sup>45</sup> See Sections I (Overview of the Transaction), V (Investments in Inpatient and Outpatient Behavioral Health Will Enhance Access for Vulnerable Populations), and VI (Partners Projected Savings and Benefits from Population Health Management) of this response.

redesign that may particularly enhance the sustained cost savings and benefits that a merger can provide.<sup>46</sup>

These Transaction benefits are consistent with, and supported by, Partners' history of accomplishing significant consumer benefits following its past acquisitions of community hospitals – NWH and NSMC – over and above the more limited benefits achieved through Partners' prior affiliations with those hospitals. Partners made substantial investments in these two community hospitals that helped to stabilize their financial condition and made possible both expansion and improvement of clinical services and facilities, as well as closer integration of medical staff and services. For example, within the first few years of acquiring NSMC, Partners invested \$20M to reduce existing debt, enhanced a preexisting affiliation in cardiology by building a new \$10M cardiology facility at NSMC, and integrated NSMC's electronic medical records system with its own. Similarly, after it acquired NWH in 1999, Partners invested \$23M in facility renovations and service expansions in rehabilitation, women's imaging, and adult gastrointestinal services by September 2000. Since this initial investment, NWH and MGH have collaborated on a cancer center, a spine center, and a children's care center, and the MGH/NWH cardiology center opening is planned for 2015. All of these investments translated to community benefit in improved services and clinical quality and outcomes well beyond that feasible with prior affiliations. These benefits are clearly demonstrated in the hospitals' sustained and new services, and by the patients who chose NWH and NSMC for their care after their Transactions in increasing numbers relative to alternatives. These investments would not have been made if the hospitals had remained independent. No health system can afford to allocate capital to a hospital that is not integrated financially. The same is true for HHS.

For this reason and others, the acquisition contemplated under the Transaction is necessary to achieve its many consumer and community benefits. HHS lacks the financial resources to achieve the goals and benefits of the Transaction alone.<sup>47</sup> Partners is fully committed to providing a substantial portion of the investment necessary to fund the initiatives of the Transaction once it is financially integrated through ownership. Furthermore, in order to achieve the consumer and community benefits

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<sup>46</sup> Dranove and Lindrooth (2003) studied whether hospital mergers lead to cost savings, and examined in-market mergers and other transactions, and found evidence that mergers can result in sustained cost reductions. Significant service line overlap was found to be an important factor. David Dranove & Richard Lindrooth, *Hospital Consolidation and Costs: Another Look at the Evidence*, 22 J. HEALTH ECON. 983 (2003). Other studies find that acquisitions can lead to slower cost and price growth. See, e.g., Heather R. Spang, Richard J. Amould and Gloria J. Bazzoli, *The Effect of Non-Rural Hospital Mergers and Acquisitions: An Examination of Cost and Price Outcomes*, 49 QUARTERLY REVIEW OF ECONOMICS & FINANCE 2 (2009): 323-342. For a comprehensive summary of the literature on merger benefits, see Margaret E. Guerin-Calvert and Jen Maki, *Hospital Realignment: Mergers Offer Significant Patient and Community Benefits*, THE CENTER FOR HEALTHCARE ECONOMICS AND POLICY (2014). The health care literature also supports the gains from integration and new and innovative health care delivery models such as Partners is using across Eastern Massachusetts to the benefit of clinical quality (including improved health of population) and cost savings. See, ANTHONY SHIH, ET AL., THE COMMONWEALTH FUND, ORGANIZING THE US HEALTH CARE DELIVERY SYSTEM FOR HIGH PERFORMANCE 17 (2008); AT 4-8.

<sup>47</sup> See Section II (The Transaction Is Needed to Address Significant Financial Challenges at HHS).

of the Transaction, HHS will need Partners PHM expertise. Partners has and continues to develop extensive expertise in PHM in its leadership role in advancing PHM.<sup>48</sup>

While Partners has both the financial resources and PHM expertise, the current HHS facilities (along with Partners' NSMC facilities) are uniquely situated to enable care redirection from Partners' downtown academic medical center, MGH, to the lower-cost redesigned community hospital setting (which will now include a more comprehensive set of services and capacity involving the fully integrated and realigned NSMC facilities). Without a shared bottom line, HHS and Partners will act each independently with a focus on maximizing their respective volume and revenue rather than fully coordinating care to improve outcomes and reduce overall medical spending. Only the acquisition and full financial integration of HHS into Partners, along with the fundamental changes in capacity, will enable the appropriate alignment of incentives and distribution of resources to support major system redesign to fully coordinate care.

We urge the HPC to broaden its evaluation of the Transaction to give due consideration and support of the many consumer and community benefits for the Northern Corridor's patients, their families, the community, and the health care delivery system. In addition, as discussed above, we appeal for the HPC's consideration of the Transaction as an opportunity to restore HHS and NSMC to financial health, a demonstrated need for which the HPC offers no other solution. Finally, in doing so, as discussed above, the HPC should recognize and give appropriate weight to the protections afforded by the Consent Judgment as it affects the Transaction. Accordingly, there is no reason in these circumstances for the HPC to make a referral to the Massachusetts Attorney General as the end result of this review.

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<sup>48</sup> See Section V (Partners' Projected Savings and Benefits from Population Health Management).

## **Appendix B: List of PHM Programs**

**Please see attached publications for a high level description of the theory and general approach Partners is taking to population health management. The following appendix describes in more detail the specific programmatic initiatives that Partners is implementing throughout its system. As will be clear, no single initiative will have a dramatic impact on cost trend, but taken as a whole set, these programs are transformative. Assumptions that we used to estimate the cost savings from these PHM programs were based on our own experiences as well as cost savings achieved by other leading health care institutions in the nation after implementing similar programs (see Appendix C).**

### **Primary Care**

#### **Patient Centered Medical Home (PCMH)**

**Program Description:** PCMH is a team-based health care delivery model led by a personal physician, supported by information technology, which provides coordinated medical care to patients in order to maximize health outcomes. Instead of working solo with patients, primary care physicians are now becoming leaders of care teams that include nurses, physician assistants, medical assistants, nutritionists and social workers. With a heightened focus on prevention, they work together to deliver comprehensive, patient-responsive primary care and, when necessary, coordinate their patients' specialty and hospital care and help guide them through the health care system. These advanced primary care centers, known as PCMHs, give patients reliable and rapid access to the full depth and breadth of clinical expertise at Partners. They also use innovative methods to make care more accessible to patients. Techniques include telephone visits, group doctor visits, extended hours, and same day appointments. Partners is committed to fully transform all primary care practices by the end of 2016.

#### **High Risk Care Management (iCMP)**

**Program Description:** The high risk care management program, known as iCMP (Integrated Care Management Program) is a primary care embedded, longitudinal care management program led by a nurse care manager working collaboratively with the PCP and care team. Phase 1, from 2006 to 2008, focused on integrating Care Managers in primary care practices to support an identified panel of high risk patients. Phase 2, from 2009 – 2011, focused on care transitions with non-acute partners. Currently, we are expanding the iCMP program to all PHS primary care practices and integrating services with sub-specialty providers, which will yield better patient outcomes and reduce the cost of care. For example, iCMP care coordinators are now engaging four key sub-specialty areas to develop care plans for the following conditions: 1) congestive heart failure; 2) chronic obstructive pulmonary disease; 3) palliative care home visiting; and 4) hepatology and liver transplant. At Partners our work supports the highest quality of care for patients, both in and out of our risk contracts. In addition, this approach is aligned with episodic care initiatives.

## **Mental Health Integration**

**Program Description:** The Mental Health Integration initiative seeks to support primary care practices in caring for patients with mental health conditions, which includes psychiatric illness and related psychosocial problems. In population health, this often includes ‘illness related behaviors’ (e.g. tendency of depressed diabetics to be poorly adherent to all medications, thereby worsening diabetes outcomes) and ‘wellness’ (e.g. stress reduction techniques that help improve post MI survival, QOL and functional capacity). “Mental Health” also includes substance use disorders and developmental issues in the pediatric population. Among mental health problems we are focusing first on anxiety, depression and substance use disorders because: 1) the high prevalence of these disorders; 2) the availability of effective treatments; and 3) their disproportionate contribution to avoidable costs. Key elements of this approach include increased screening, a phone access line with referral support, evidence-based approaches for depression and substance abuse, online patient directed therapy, and IT tools to track longitudinal progress and patient reported outcome measures. To increase patient access to these services, mental health resources (e.g. consulting psychiatrist) will be embedded into primary care practices.

## **Virtual Visits**

**Program Description:** Partners Telehealth programs aim to connect patients and providers virtually anywhere by providing innovative, easy-to-use technology platforms to foster communication, build relationships, improve access and convenience, and enhance patient care. Telehealth approaches include video conferencing, text messaging, electronic curbside, and phone/email.

In *primary care*, we are using structured email to replace in-person follow up visits for select conditions to improve in-person access, reduce follow up visits per patient per year and engage patients in achieving specific chronic disease goals (e.g. HTN, depression). Through this program, patients can receive more frequent and goal oriented communication from their care team, while primary care physicians find more capacity for taking on new primary care patients.

In *specialty care*, we are using video technology to provide patients with a more convenient, low cost option for routine follow up visits, which in turn will create more in-person capacity for sick, urgent, and new patients. In addition, primary care physicians are “dialing in” specialists virtually to provide real-time virtual consults when in need for urgent specialist input, often avoiding costly emergency room visits. Similarly, post acute providers are able to request virtual consultations from hospital based specialty providers to prevent post discharge ED visits and readmissions.

Ultimately, replacing even a fraction of our outpatient visits with virtual alternatives has the potential to engage patients with more convenient, home-based care, while reducing costs.

### **Expected Savings from PHM Primary Care programs:**

**On a Per Member Per Month basis, we believe PHM Primary Care programs in aggregate would equate to \$16.02 PMPM savings.**

We base our care management program savings on the success of our Medicare Demonstration project. MGH returned 7% net savings on the high-risk population, which equaled a 4% net savings on the overall population. During Phase 2 (2009), our demonstration project expanded the number of sites and improved on the basic design, delivering 19% savings on the cohort (12% savings on total population).

There is compelling evidence that PCMHs are effective at reducing costs and improving quality. Research shows that not only do patients find them to be a better and more convenient way of receiving care but PCMHs can dramatically reduce unnecessary care. For example, PCMHs can cut down on hospital admissions, readmissions and emergency room visits, which in turn reduce total medical expenses.

## **Specialty Care**

### **Active Referral Management**

**Program Description:** Active referral management encourages specialists and primary care physicians to collaborate to provide appropriate, timely, and well-coordinated care. The referral management program assesses the appropriateness and urgency of referrals, informs pre-visit planning and provides alternative visit options when available and clinically appropriate. There are two approaches to making referrals more targeted: e-consults and pre-referral management. e-consults, often referred to as “curbside consults,” are initiated by a primary care provider seeking specialist consultation for particular medical conditions. Pre-referral management is the review of a subset of all referrals, unique to specialist practice and conditions, prior to scheduling to determine if the referral can be alternatively managed outside of an in-person visit. Both of these approaches offer several advantages to the current state:

- Provide alternative ways of managing patients’ needs without face-to-face visits.
- Allow specialties to assist with referral triage, by assessing appropriateness and urgency, as well as specialty and physician selection.
- Allow specialists to assist with diagnostic work-up and pre-visit preparation, so that in-person visits are most useful.

### **Virtual Visits**

**Program Description:** Partners Telehealth programs aim to connect patients and providers virtually anywhere by providing innovative, easy-to-use technology platforms to foster communication, build relationships, improve access and convenience, and enhance patient care. Telehealth approaches include video conferencing, text messaging, electronic curbside, and phone/email.

In *specialty care*, we are using web-based video conferencing for certain medical conditions with a focus on follow-up visits, which have been shown to be just as effective as face-to-face visits. This approach provides patients with a more convenient option for care, decreasing co-pays, travel, and time away from work. For example, the Mass General TeleHealth program has implemented virtual visits for ED, inpatient, post-acute follow-up and primary-specialty triage. The following

departments have virtual visit programs in these areas: Burn Service, Cardiology, Dermatology, Neurology, Psychiatry and Pediatrics.

Priority areas and goals include:

1. Virtual Visits and Consults – conversion of traditional visits to virtual visits.
2. Spaulding Rehabilitation Network – Virtual videoconference leading to reduced ED and outpatient visits, readmissions, and adequate staffing.
3. Cooley Dickinson, Martha's Vineyard Hospital, Nantucket Cottage Hospital, South Shore Hospital – ensure access to specialists for these patients who have long distances to travel.

### **Procedural Decision Support (appropriateness) and Patient Reported Outcomes**

**Program Description:** For patients facing complex decisions, the PrOE tool (Procedure Order Entry) and patient-reported outcome measurement (PROMs) can help guide patients and physicians through common procedures by providing meaningful and measurable assessments of risks, benefits, and the impact of care on patients. PrOE, a web-based decision support tool, organizes critical information about the patient in order to assess whether or not a proposed procedure meets clinical guidelines. PrOE is currently being used for 5 procedures including 100% of cardiac catheterizations and coronary artery bypass grafting at MGH.

PROMs is a platform that collects and reports patient-reported outcomes for the purposes of better clinical care and improving value. In addition to standard quality measure reporting (e.g. mortality, length of stay, readmissions, lab values and other process measures), PROMs collects information directly from patients regarding their systems, functional status, and mental health. To collect PROMs, patients enter information into an electronic format (e.g. iPads, patient portal, or the web). PROMs is currently available at Partners for the following conditions: Coronary Artery Disease (CABG, Cardiac Catheterization), Osteoarthritis, Valvular Disease, Diabetes, and Depression. In 2014, PROMs will expand to include other conditions such as Prostate Cancer, Benign Prostatic Hypertrophy, Spinal Stenosis, Osteoarthritis, and Rheumatoid Arthritis, among others. PROMs improves care of individual patients through better monitoring and improved responsiveness and system-wide care by measuring/improving the right outcomes – those that matter most to patients.

### **Expected savings from PHM Specialty Care programs:**

**On a Per Member Per Month basis, we believe PHM Specialty Care programs in aggregate would equate to \$0.36 PMPM savings.**

**While our efforts in specialty care are still early, our pilot results are very promising across a number of our initiatives to provide greater savings beyond those the \$0.36 PMPM savings mentioned above. We expect the savings to grow as we continue to scale these programs and engage more providers. For example, our work in appropriateness demonstrates early results that PHS providers perform a high rate of appropriate procedures. We have evidence that engaging patients in their care through PrOE has resulted in patients electing non-operative management where the choice for a procedure**

**and non-operative management was equivalent. We expect to demonstrate significant savings from the reduction in potential inappropriate surgeries, particularly when these programs are applied to the community hospital setting. At present, these “avoided procedures” and resultant cost savings are not calculated in our savings projections.**

## **Care Continuum**

### **Urgent Care**

**Program Description:** In order to serve our lower acuity patients who are currently being seen in an Emergency Department, we will develop Urgent Care Centers in the geographies where the need is greatest. Building upon the Urgent Care that currently exists at the LMH campus, and the potential Urgent Care Center being developed by HHS in Reading, we plan to develop an additional Urgent Care service offering in the Burlington/Lexington area. Cost savings will be generated by decanting low acute volume from our existing EDs to the “net new” Urgent Care facilities we mutually develop. As seen in the table below, for basic care, there is a considerable difference in the Net Revenue per case paid for an Urgent Care visit vs. an ED visit (based on BWH experience). In addition, we anticipate being able to transition 10% of patients from the HHS Service Area who are seen in the MGH ED as Level 1 or 2 cases to the HHS EDs, resulting in additional cost savings. It is important to note that these savings are captured within site of care rationalization and specifically in our PHM savings.

### **Skilled Nursing Facility Care Improvement**

**Program Description:** In collaboration with Partners Continuing Care – PHS’s high performing network of post-acute and rehabilitative services – Partners has created a quality-based network of skilled nursing facilities to provide the highest quality of care to a wide variety of patients discharged from Partners HealthCare facilities. The network has provided a foundation for improved patient satisfaction, faster recoveries (e.g. reduced SNF length-of-stay), and reduced readmissions. Some of these gains have already been achieved, and the broader network is a foundation for piloting and accelerating the spread of quality improvement (QI) programs, including warm handoff, medicine reconciliation and telehealth initiatives. In addition, thanks to a waiver granted by CMS for our Pioneer ACO patients, select partner SNFs are now admitting ACO beneficiaries, including HHS, for skilled nursing care without a prior 3-day inpatient hospitalization. We are also in the process of developing other quality-based networks to help support QI, including a network of SNF-based MDs and nurse practitioners that can serve the HHS population.

### **Home Care Innovation**

**Program Description:** The Telemonitoring Program for patients with congestive heart failure, allows clinicians to remotely monitor patients with heart failure for signs of clinical deterioration, thereby enabling timely and effective interventions. There is a range of technologies that collect and

transmit real-time patient data such as physical symptoms, blood pressure, weight changes, and electrocardiogram readings to a central location for evaluation. Patients are provided with a suite of devices, consisting of a weight scale, blood pressure cuff, and pulse oximeter to send their data and symptom information daily to a portal where telemonitoring nurses can view data and follow up accordingly. Failure to upload would generate a reminder phone call to the patients by the telemonitoring nurses. If patients uploaded data outside parameters, nurses follow standing orders given by the cardiologists, or if necessary, send the cardiology team a clinical message. Partners hospitals assess all heart failure discharges for suitability of telemonitoring and at any one time have hundreds of patients actively using this technology. In addition, Partners Center for Connected Health (CCH) has been piloting telemonitoring innovation in the home setting for diabetes and hypertension. Similar to the programs described above, patients are provided home monitoring devices and are followed by nurses remotely. If a patient's telemonitoring device signals that a patient needs to be seen in person, the patient is contacted to set up an appointment. These programs offer safe and convenient ways for patients to engage in their healthcare.

### **Mobile Observation Unit**

**Program Description:** The Partners Mobile Observation Unit provides home visits to patients with complex clinical conditions or patients with frailty/home-safety concerns. Advanced practice clinicians provide home visits. The program aims to provide high quality care to patients in the home as an alternative to hospitalization. Frequently patients' problems are diagnosed in an emergency room and treatment is started, but they are admitted to the hospital for observation. In many situations (such as infections of the skin called cellulitis), these patients can be safely discharged if they can be closely followed for 1-3 days. This program was piloted in 2013 at MGH and will begin rolling out across Partners in 2014.

The Mobile Observation Unit reduces health care costs by decreasing potentially avoidable inpatient or observation care and the length of stay.

### **Expected savings from PHM Care Continuum programs:**

**On a Per Member Per Month basis, we believe PHM Care Continuum programs in aggregate would equate to \$4.36 PMPM savings.**

### **Patient Engagement**

#### **Shared Decision Making & Decision Aids/Educational Materials**

**Program Description:** Patient and family engagement is a key driver in the transformation of the healthcare delivery system. Patients are in charge of protecting their health, participating in making appropriate decisions for necessary treatments and self-managing their chronic disease(s). To effectively do this, patients need to be engaged in their care. The Partners Healthcare Patient Engagement Strategy is helping to lead initiatives that span the broad categories of enhanced communication with our patients, enhanced patient portal services, one-on-one health coaching,

education materials delivered through a variety of media, increased patient involvement through patient family advisory councils, and increased appointment access with our care teams. Access to these systems will come through Partners EHR platform (see below). As part of this broader engagement strategy, shared decision making is being integrated into care delivery across a large number of clinical situations and procedures. Abundant evidence indicates that systematic use of these decision aids decreases costs of care.

## **Infrastructure**

### **Single EHR Platform**

**Program Description:** Partners is working with Epic, the industry-leading provider of health information technology, to develop and implement an integrated, electronic health information system at all institutions across the Partners network by 2017. This initiative, Partners eCare, is the largest program of its kind in the history of Partners HealthCare. Partners eCare will support Partners' innovation and leadership in redesigning patient care models, advancing population health management, improving patient affordability, enhancing the patient experience, and strengthening community-based care. Partners eCare will help Partners fulfill its pledge to deliver the highest quality care to patients that is safe, effective, accessible, and affordable.

### **Enterprise Data Warehouse (EDW)**

**Program Description:** Partners, in collaboration with Health Catalyst, developed the Enterprise Data Warehouse (EDW), which is designed to help healthcare institutions store massive quantities of clinical data and speed up the analysis of clinical and financial data. This improves access to data stored inside multiple applications that can help improve clinical outcomes, increase efficiencies and enhance patient satisfaction.

**Appendix B, Figure 1: List of PHM Programs**

<b>Primary Care</b>	<ul style="list-style-type: none"><li>• Patient Centered Medical Home (PCMH)</li><li>• High risk care management (palliative care)</li><li>• Mental health integration</li><li>• Virtual visits</li></ul>
<b>Specialty Care</b>	<ul style="list-style-type: none"><li>• Active referral management (curbsides)</li><li>• Virtual visits</li><li>• Procedural decision support (PrOE) (appropriateness)</li><li>• Patient reported outcomes</li><li>• Episodes of care (bundles)</li></ul>
<b>Care Continuum</b>	<ul style="list-style-type: none"><li>• Urgent care</li><li>• SNF care improvement (network/waiver/SNFist)</li><li>• Home care innovation (mobile observation/telemonitoring)</li></ul>
<b>Patient Engagement</b>	<ul style="list-style-type: none"><li>• Shared decision making</li><li>• Customized decision aids and educational materials</li></ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"><li>• Single EHR platform with advanced decision support</li><li>• Data warehouse, analytics, performance metrics</li></ul>

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# EXHIBIT B:

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HPC ANALYSIS OF PARTNERS HEALTHCARE AND HALLMARK  
HEALTH'S RESPONSE TO PRELIMINARY REPORT

## Exhibit B

### HPC Analysis of Partners' and Hallmark's Written Response to HPC Preliminary Report

This document analyzes and addresses the concerns contained in the August 1, 2014 response of Partners HealthCare System (Partners) and Hallmark Health Corporation (Hallmark) to the Health Policy Commission's Preliminary CMIR Report (Written Response). Partners and Hallmark responded to two primary areas of HPC analysis:

1. **Cost and Quality Impact.** Partners and Hallmark assert that the consent judgment they negotiated with the Attorney General's Office (proposed settlement) and current payer contract provisions will prevent increased costs projected by the HPC, and that the HPC's cost and market analyses are based on flawed assumptions or reasoning. The parties also provide a new estimate of savings they believe their population health management (PHM) initiatives will generate.
2. **Access Impact.** Partners and Hallmark believe that the HPC fails to credit the transaction's potential to improve access to high-quality care, including by addressing financial challenges at Hallmark.

Pursuant to the HPC's responsibility to enhance the transparency of significant changes to the health care system, we address each of these areas below. We concurrently issue a Final Report of data-driven analysis of this transaction, so that purchasers, consumers, and the other stakeholders who ultimately bear the cost of our health care system may decide whether the potential benefits of this transaction are sufficiently significant and concrete to outweigh the substantial negative cost and market impacts projected, including an estimated \$15.5 to \$23 million in increased spending per year by the three major commercial payers.

**I. Cost and Quality Impact. This transaction is projected to reinforce Partners' market power and increase medical spending in northeastern Massachusetts, notwithstanding the proposed settlement and current payer contract provisions. The parties have not provided reliable and concrete evidence of care delivery efficiencies that would offset these costs.**

*A. This transaction is projected to reinforce Partners' market power and increase medical spending in northeastern Massachusetts, notwithstanding the proposed settlement and current payer contract provisions.*

The Written Response states that the HPC has ignored "multilayered controls" that would guard against cost increases and negative market impacts from the transaction, namely the proposed settlement and the existence of budget neutrality and other provisions in Partners' existing payer contracts. As detailed below and in the public comment the HPC filed concerning the proposed settlement (HPC Comment),<sup>1</sup> cost and market impacts from this transaction are anticipated notwithstanding the proposed settlement and current payer contract provisions.<sup>2</sup>

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<sup>1</sup> The HPC filed a public comment concerning the proposed consent judgment on July 17, 2014. Public Comment by the Mass. Health Policy Comm'n In Re Comm. of Mass. v. Partners Health Sys., Inc., South Shore Health and

Further, we note that the parties have consistently advocated for the transaction on the basis that it will lower total medical spending, and have publicly stated that their purpose in consolidating is not to raise prices. Rather than citing complex provisions of a negotiated settlement or private contract provisions that are regularly renegotiated as the bulwarks to ensure compliance with the parties' own promises, the parties have not offered a far more direct approach: an unequivocal commitment not to increase the prices of Hallmark providers and to lower total medical spending across all books of business for the operations and providers described in the parties' transaction materials, whom they state will achieve this lowered spending.

1. Partners maintains flexibility to seek supra-competitive rates<sup>3</sup> for Hallmark under the price growth constraints in the proposed settlement agreement, and will continue to have leverage to seek such rate increases after these constraints expire.

As the HPC has previously noted, under the constraints on unit price growth in the proposed settlement,<sup>4</sup> price increases from the Hallmark transaction “would not necessarily result in a net increase in average price growth across the Partners network”<sup>5</sup> for the 6.5 year duration of that provision. However, Partners retains flexibility to allocate price increases across its community providers to optimize revenue and market position. In other words, individual

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Ed. Corp., and Hallmark Health Corp., Civil Action No. 14-2033-BLS (Mass. Superior Ct. Jul. 17, 2014) [hereinafter HPC Comment], available at <http://www.mass.gov/ago/docs/partners/hpc.pdf>.

<sup>2</sup> In addition to the detailed points regarding the proposed settlement presented below, we note that the full impact of the proposed settlement will depend on effective measurement and monitoring of key terms underlying the agreement, such as prices and TME. There appear to be some aspects of the current definition of those terms that could allow for price and TME increases in excess of general inflation and the health care cost growth benchmark, respectively, and other aspects that are not yet determined and may be refined through the monitoring process. For example, we understand that the price growth restriction will be monitored based on Partners' revenue from the previous year, including the previous year's mix of patient membership and services. As a result, it may be possible for price growth in excess of general inflation to be realized based on a shift in Partners' mix of patient membership or services from one year to the next. *Id.* at 5.

<sup>3</sup> This term refers to rates higher than those obtainable in a competitive market.

<sup>4</sup> The proposed settlement limits the unit price growth of different components of the Partners system to the rate of general inflation for 6.5 years, including separate components for AMC providers, community providers including Hallmark, and South Shore Hospital and its associated providers. We note that one consequence of the exercise of Partners' bargaining leverage, historically and anticipated in connection with this transaction, is the perpetuation or exacerbation of supra-competitive rate differences between Partners and competing providers. We are unable to determine that the proposed settlement will be effective in narrowing these anticompetitive price differences, because it is unclear that competing providers will receive price increases in excess of general inflation over the next 6.5 years. This is especially true in light of recent decreases in U.S. health care spending, and the different market position of these providers compared to Partners in the context of the statewide health care cost growth benchmark. According to our estimates, most providers would have to obtain rate increases significantly above general inflation to approach addressing the sizeable gap between their rates and those of Partners.

<sup>5</sup> MASS. HEALTH POLICY COMM'N, REVIEW OF PARTNERS HEALTHCARE SYSTEM'S PROPOSED ACQUISITION OF HALLMARK HEALTH CORPORATION (HPC-CMIR-2013-4), PURSUANT TO M.G.L. C. 6D, § 13, PRELIMINARY REPORT 40 [hereinafter PRELIMINARY REPORT]; HPC Comment, *supra* note 1, at 3; MASS. HEALTH POLICY COMM'N, REVIEW OF PARTNERS HEALTHCARE SYSTEM'S PROPOSED ACQUISITION OF HALLMARK HEALTH CORPORATION (HPC-CMIR-2013-4), PURSUANT TO M.G.L. C. 6D, § 13, FINAL REPORT 44 [hereinafter FINAL REPORT].

community providers like Hallmark could receive rate increases in excess of general inflation. Specifically, in 2011, the most recent year for which reliable data are available, Hallmark and Partners' community hospitals and physicians received nearly \$1.4 billion in revenue from payers monitored under the proposed settlement.<sup>6,7</sup> This means that if general inflation were 1.5%, Partners could negotiate rates in the first year of the proposed settlement resulting in more than \$22 million in additional payer spending for these community providers, and higher amounts in each subsequent year as these providers' baseline revenue increases. Because Partners appears to retain flexibility under the settlement to allocate rate increases across its community network, it could elect to allocate higher rate increases to certain service categories or providers, and lower rate increases to others.<sup>8</sup>

The option to allocate different rates across its component providers affords a rational organization the flexibility to optimize its revenue and market position, both during the settlement and at its expiration. Where, as here, volume is not monitored under the price constraint provisions of the settlement, this could include allocating higher rate increases to: (1) service categories that are popular or expanding (for Partners, the state's largest tertiary referral system, this includes a spectrum of high-margin specialty services), (2) popular providers to which consumers are least price-sensitive, and (3) Partners providers who are not as dominant or profitable in their area as Partners' most well-established providers, potentially to optimize the market position of these providers at the expiration of the settlement.<sup>9</sup> Each of these options would tend to maximize Partners' baseline revenue growth year-to-year, with the likely effect of more optimally positioning the system both during the settlement and upon its expiration.

Given the amount of dollars available in the community pool, should Partners elect to treat Hallmark consistently with its other owned community providers, it could do so. Over one or more years of the settlement, Partners has the flexibility to increase Hallmark's rates in line with the \$16.1 million in increased hospital and physician rates modeled by the HPC.<sup>10</sup> These increased rates would set a permanently increased baseline upon which future price increases for

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<sup>6</sup> This figure is conservative because it reflects revenue from most, but not all, of the monitored payers, and because it does not include all of the Partners community providers that the HPC understands would be included in the community provider pool. Specifically, the figure focuses on available data for Partners' community hospitals and physicians, but not other community providers, such as Partners Healthcare at Home, which would potentially be included in the community pool. Moreover, as Partners proposes relicensing certain Hallmark facilities under MGH, including Hallmark-LMH and Hallmark's oncology facilities in Stoneham, rate increases for these facilities would be subject to the unit price growth restriction in Partners' AMC pool, which has greater revenue than the community pool, and thus Partners could negotiate rate increases that result in even greater revenue increases for these facilities.

<sup>7</sup> Note that Cooley Dickinson Hospital and its physicians (Cooley Dickinson) are not included in these figures. Cooley Dickinson is subject to a separate agreement with the Attorney General through June 1, 2018, and thus the proposed settlement has no application to Cooley Dickinson until that time. After June 1, 2018, the proposed settlement allows Partners to determine whether to treat Cooley Dickinson as an independent contracting component or add Cooley Dickinson to the community contracting component and also subject it to the unit price growth cap.

<sup>8</sup> See HPC Comment, *supra* note 1, at 3.

<sup>9</sup> Partners can also set compensation and disburse funds to component providers regardless of the rate at which the provider bills the payer; despite this, Partners has cautioned that allocating differing payer rate increases across its providers can still pose challenges in light of the potentially different perspectives of those providers.

<sup>10</sup> This figure reflects a projected \$6.8 million annual increase in physician prices and a \$9.3 million annual increase in hospital prices. FINAL REPORT, *supra* note 5, at 52, 53.

Hallmark would be negotiated, including rates negotiated following expiration of the settlement, and would permanently increase baseline total medical spending and premiums in an area of the state that has thus far not experienced the market impact of a local Partners facility.

Perhaps most importantly, without lasting change to the market structures and incentives that underlie the operation of bargaining leverage, there are inherent limitations to the capacity of time-limited price constraints to contain costs long-term.<sup>11</sup> Specifically, the proposed settlement does not permanently alter those features of the Partners system, such as its size and market share, which contribute to its current market power to command higher prices and other favorable contract terms. Rather, the proposed settlement allows Partners to grow by acquiring Hallmark's hospitals, outpatient centers, associated physicians, and other providers. We have projected that this acquisition will only reinforce Partners' existing market power, meaning that at the expiration of price constraints, Partners would likely enjoy even greater leverage to command supra-competitive rates and other favorable contract terms. Such price increases are consistent with evidence regarding the behavior of other providers following the expiration of rate caps.<sup>12</sup>

2. Shifts in patient care to higher-priced Partners providers projected as a result of this transaction will increase health care spending, notwithstanding the proposed settlement

Another reason why cost and market impacts are projected notwithstanding the proposed settlement is that the agreement does not encompass all of the mechanisms by which health care spending is anticipated to increase. In particular, the material price impact of anticipated shifts in patient care to higher-priced Partners providers is not fully addressed by the proposed settlement. Increased spending due to shifts in patient flow to higher-priced providers is not included in the agreement's unit price constraint, but rather would be measured as increases in total medical expenses (TME).<sup>13</sup> Since the agreement only monitors the TME for Partners' commercial risk business, anticipated increases in TME as Partners grows its non-risk books of business, currently including Preferred Provider Organization (PPO) and non-risk Health Maintenance Organization (HMO)/Point of Service (POS) patients,<sup>14</sup> are not monitored. The latest publicly filed data by Partners (for 2012) indicates that the commercial risk business

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<sup>11</sup> See HPC Comment, *supra* note 1, at 3-4.

<sup>12</sup> See, e.g., Jeff Engel, *Spectrum Health, Metro Health, and St. Mary's Are Charging More for Hospital Services*, GRAND RAPIDS PRESS, July 3, 2010, available at [http://www.mlive.com/business/west-michigan/index.ssf/2010/07/spectrum\\_health\\_metro\\_health\\_a.html](http://www.mlive.com/business/west-michigan/index.ssf/2010/07/spectrum_health_metro_health_a.html) (describing 8% price increases at Spectrum Health after the expiration of a seven year price cap set forth in *FTC v. Butterworth Health Corp.*, 946 F. Supp. 1285 (W.D. Mich. 1996)); Stewart Ain, *After Merger's Bumpy Start, North Shore-L.I.J. is Clicking*, N.Y. TIMES, Dec. 17, 2000 (describing price increases driven by increased bargaining leverage following the expiration of a two year price cap referenced in *U.S. v. Long Island Jewish Med. Ctr.*, No. CV 97-3412, 983 F. Supp. 121, 142-144 (E.D. Ny. Oct. 23, 1997)).

<sup>13</sup> As discussed in Section II.A of the Final Report, the proposed settlement limits TME growth for Partners' commercial risk business to the health care cost growth benchmark established by the HPC.

<sup>14</sup> Patients in PPO products, which do not require patients to designate a primary care provider (PCP) or obtain referrals to other providers through that PCP, are currently excluded from commercial risk contracts. The extent to which HMO/POS patients are covered by risk contracts differs by payer and provider; for example, for some major payers, self-insured HMO/POS patients are currently not included in risk contracts.

monitored by the TME provision of the agreement is about 11% of Partners' total commercial business.<sup>15</sup> Among the commercial business not monitored under the TME provision of the agreement is business from patients associated with other provider systems who receive some of their care from Partners and Hallmark facilities and specialists. Over time, the increased spending baseline from such site of care effects will impact consumers and payers in this region.

3. It is unclear whether component contracting, which is also time-delimited, will adequately address the exercise of Partners' bargaining leverage.

Whether and to what extent the component contracting<sup>16</sup> provision of the settlement will serve as a constraint on the exercise of Partners' bargaining leverage will depend on a range of considerations. First, component contracting – the option for payers to select which components of a provider system to include in their networks – does not eliminate a rational provider organization's incentive to raise prices in situations where the components would compete with each other were they independent. Where, as here, the provider organization consists of component hospitals that are direct competitors, a payer will not be able to threaten the provider organization with the prospect of losing all its previous volume due to the exclusion of one component of the organization from the payer's network.<sup>17</sup>

Specifically, Hallmark and Partners are direct competitors in Hallmark's PSA. If Hallmark became unavailable to consumers, the next most popular choice for residents of this PSA are Partners' hospitals.<sup>18</sup> Thus, a payer threatening to exclude Hallmark from its network would not necessarily be able to leverage the loss of this patient volume in contract negotiations, since a significant proportion of these patients would simply seek care from other Partners

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<sup>15</sup> See MASS. HEALTH POLICY COMM'N, Annual Cost Trends Hearing (2013), Pre-Filed Written Testimony of Partners HealthCare System, Response to Exh. C, Q.5, available at <http://www.mass.gov/anf/docs/hpc/attachment-b-for-phs.xlsx>.

<sup>16</sup> As discussed in Section II.A of the Final Report, the proposed settlement allows payers to elect to contract separately with Partners' academic providers, community providers, the Hallmark providers, and the South Shore Hospital providers each as separate contracting components. After seven years, the Hallmark and South Shore contracting components would be subsumed into the community contracting component with Partners' other community providers.

<sup>17</sup> See, e.g., JOSEPH FARRELL ET AL., FED. TRADE COMM'N, ECONOMICS AT THE FTC: HOSPITAL MERGERS, AUTHORIZED GENERIC DRUGS, AND CONSUMER CREDIT MARKETS 5-6 (2011), available at [http://www.ftc.gov/sites/default/files/documents/reports/economics-ftc-hospital-mergers-authorized-generic-drugs-and-consumer-credit-markets/farrelletal\\_rio2011.pdf](http://www.ftc.gov/sites/default/files/documents/reports/economics-ftc-hospital-mergers-authorized-generic-drugs-and-consumer-credit-markets/farrelletal_rio2011.pdf) (“Changes in the disagreement payoffs of the hospitals or of the MCO [managed care organization], and hence price effects, are increasing in the diversions between the merging hospitals and in their pre-merger bargaining power. If the hospitals are substitutes and bargain separately post-merger, their disagreement payoffs (and, hence equilibrium prices) rise because each hospital now takes into account the fact that its merger partner will recapture some of its lost volume if it fails to reach an agreement.” See also Gautam Gowrisankaran, Aviv Nevo & Robert Town, *Mergers when Prices are Negotiated: Evidence from the Hospital Industry* A. ECON. REV. (forthcoming 2014) (manuscript at 28) available at [http://www.u.arizona.edu/~gowrisan/pdf\\_papers/hospital\\_merger\\_negotiated\\_prices.pdf](http://www.u.arizona.edu/~gowrisan/pdf_papers/hospital_merger_negotiated_prices.pdf) (stating “[e]ven though the negotiations are separate, the [newly acquired hospital] bargainer might internalize the incentives of the system, namely that if a high price discouraged patients from seeking care at [the newly acquired hospital], some of them would still divert instead to other [acquiring system] hospitals which is beneficial for the parent organization.”).

<sup>18</sup> If the Hallmark hospitals were to become unavailable to consumers, econometric analysis of changes in patient site of care (diversion analysis) shows that 43% of patients living in Hallmark's PSA are likely to choose to receive care at a Partners hospital.

providers. This fact contradicts the parties' claims that they would be unable to seek supra-competitive rates due to the threat of exclusion of Hallmark and "the loss of potentially substantial amounts of revenue."<sup>19</sup> To the contrary, Partners would still receive the revenue for many of these former Hallmark patients, and is still incentivized to seek prices for its various components that maximize profits across its system.<sup>20</sup> Even if a payer could construct an insurance network for local residents that did not include Hallmark, it would still need alternate hospitals to serve those patients, and Partners owns the next most popular hospitals as well. The fact that these competitor hospitals are now under common ownership means that component contracting is unlikely to be effective in eliminating the provider organization's ability and incentives to demand price increases higher than what would be possible if each hospital were truly a financially independent competitor.

Another consideration is how component contracting will operate in the context of a shift to integrated care delivery structures, and whether purchasers and consumers find more limited networks that include only components of provider systems appealing. The effectiveness of component contracting is premised on the potential exclusion of certain providers within a provider system from payer networks. This may present care coordination and referral challenges for both consumers and providers, especially in the context of a shift to global payment arrangements, which generally seek to reimburse providers for coordinating care across their entire networks.<sup>21</sup>

Ultimately, the impact of component contracting will depend on whether and to what extent payers vigorously pursue this option, and on how the market responds. For example, in 2007, the Federal Trade Commission (FTC) found the 2000 merger of Evanston Hospital and Highland Park Hospital near Chicago to be anticompetitive. The FTC concluded that a structural remedy would be impractical (noting that "divesting Highland Park after seven years of integration would be a complex, lengthy, and expensive process") and thus ordered the parent entity to establish independent contracting teams for Highland Park Hospital.<sup>22</sup> To date, no payer has pursued this option and prices have not reverted to competitive levels.<sup>23</sup>

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<sup>19</sup> Exh. A: Partners HealthCare and Hallmark Health's Response to the Health Policy Commission's Preliminary CMIR Report dated July 2, 2014, 10 (Aug. 1, 2014) [hereinafter Written Response].

<sup>20</sup> See U.S. DEP'T. OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES 21 (2010), *available at* <http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf> [hereinafter HORIZONTAL MERGER GUIDELINES] ("Adverse unilateral price effects can arise when the merger gives the merged entity an incentive to raise the price of a product previously sold by one merging firm and thereby divert sales to products previously sold by the other merging firm, boosting the profits on the latter products. Taking as given other prices and product offerings, that boost to profits is equal to the value to the merged firm of the sales diverted to those products.").

<sup>21</sup> For example, if a payer chose to contract with only Hallmark, but not MGH, this could result in patients being required to seek tertiary care outside of the Partners system, rather than at the Partners tertiary sites which are proposed to be fully integrated with Hallmark. If patients wanted to stay within the integrated Partners system, this could result in those patients facing expensive financial liabilities for out-of-network care.

<sup>22</sup> In the Matter of Evanston Northwestern Healthcare Corp. & ENH Medical Group, Inc., No. 9315, 16 (Fed. Trade Comm'n Aug. 6, 2007), *available at* <http://www.ftc.gov/sites/default/files/documents/cases/2007/08/070806opinion.pdf>.

<sup>23</sup> Comment of Academic Economists In Re Comm. of Mass. v. Partners Health Sys., Inc., South Shore Health and Ed. Corp., and Hallmark Health Corp., at 5 Civil Action No. 14-2033-BLS (Mass. Superior Ct. July 21, 2014), *available at* <http://www.mass.gov/ago/docs/partners/academic-economists.pdf>. See also Gowrisankaran, Nevo & Town, *supra* note 17 at 29 ("The FTC in its Evanston decision hoped that this conduct remedy would re-inject

Finally, we note that component contracting, like the other terms of the proposed settlement, is time delimited. It is thus unclear to what extent this provision can effect lasting changes to the market structures and incentives that underlie the operation of bargaining leverage. Our analysis indicates that without such lasting changes, an expanded Partners system would likely command increased market power at expiration of the proposed settlement.

4. The HPC modeled changes in contracting rates consistent with payer perspectives, Partners’ practices, and the parties’ goals for the transaction.

The parties state that, in addition to the settlement agreement, their payer contracts will negate any cost increases projected by the HPC. This statement is misleading on several counts.

First, as explained in the Preliminary and Final Reports, Partners’ contract with one major payer is currently up for renegotiation, while its contracts with two other major payers are up for renegotiation next year. The HPC agrees with the parties that current terms in some of these contracts would prevent immediate changes in Hallmark rates. However, since these contracts are being renegotiated, the HPC considered the important question of anticipated changes to these contracts based on payer perspectives, Partners’ practices, and the parties’ stated goals for the transaction. In addition, we note that, contrary to the parties’ portrayal, other payer contracts permit Hallmark to access higher Partners rates immediately.<sup>24</sup>

The HPC extensively interviewed the major commercial payers, who confirmed that Partners receives rates for its physicians and greater Boston area community hospitals that fall into discernible “tiers.” They confirmed that the Hallmark physicians, consistent with their current status as “affiliated” physicians, receive the lowest tier of Partners rates, while other community physicians receive higher “integrated” rates because they are employed by Partners. They also confirmed that Partners’ greater Boston area community hospitals receive consistent rates, and expressed expectations that, over time, Partners would seek parity between Hallmark’s hospital rates and those of its other owned community hospitals, consistent with its past practice. The payers, fully acknowledging the constraints on immediate changes to Hallmark providers’ rates in Partners’ current contracts, still expressed varying concern regarding Hallmark providers accessing these higher rates in future contracts, especially in light of Partners’ known contracting practices with respect to its tiered price structure. Guided by these facts and consistent with (1) the payers’ experience of Partners’ negotiating leverage and approach to tiered rates, and (2) the parties’ own stated goals of converting Hallmark into a “fully-integrated” provider,<sup>25</sup> we

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competition into the market by reducing the leverage of the hospital that bargains separately; e.g., [the newly acquired hospital] could only threaten a small harm to the MCO from disagreement. However, this remedy also reduces the leverage of the MCO [payer] since if it offers an unacceptable contract to [the newly acquired hospital], some of its but-for patients would certainly go to other [acquiring system] hospitals. . . . Empirically, separate negotiations do not appear to solve the problem of bargaining leverage by hospitals.”)

<sup>24</sup> See FINAL REPORT, *supra* note 5, at 52.

<sup>25</sup> The parties have repeatedly emphasized that tighter integration with Hallmark, including physician employment, is key to the success of their PHM goals for this transaction. The shift to employed physician rates that we modeled is supported both by the parties’ stated care delivery plans and with transaction documents explicitly envisioning employment of Hallmark’s medical staff. *E.g.*, Affiliation Agreement, at Art. 5.6.1 (emphasizing that a “key

presented the cost impact over time of Hallmark’s providers receiving rates comparable to Partners’ other integrated community providers. As described in the Final Report, these cost impacts are anticipated over time, after the expiration of current contracts, and the figures presented are conservative because they do not include the cost impact under contracts that permit Hallmark to immediately access Partners’ higher rates.

***B. The HPC’s market analysis is sound, probative of pricing power and consistent with applicable guidelines and precedent***

***1. The HPC’s market analysis is methodologically sound and relevant to assessing competitive impact and pricing power***

Contrary to the parties’ claims, which largely mirror those raised by Partners in response to the HPC’s analysis of Partners’ proposed acquisitions of South Shore Hospital and Harbor Medical Associates, the HPC’s market analysis of primary service areas (PSAs) is sound and relevant to assessing competitive impact. By construction, a PSA includes a set of consumers for whom the focal hospital is a viable choice. This is a highly relevant set of consumers, and analyzing where these consumers receive their care identifies different hospital options from the perspective of these consumers. An analysis of where residents in Hallmark’s PSA receive their care shows that Partners hospitals and Hallmark are the first and third choices for inpatient care for these residents.

The HPC’s definition of a primary service area is not hindered by the fact that patients travel outside of the service area to obtain services or by the fact that there is no Partners hospital in Hallmark’s PSA. Partners and Hallmark misunderstand the HPC’s market share and concentration analysis; this analysis reflects the perspective of customer locations, not hospital locations. The market shares reported by the HPC show where *residents* in the PSA receive their care, regardless of the location of the provider. In so doing, the HPC’s methodology accounts for patients’ willingness to travel outside of the PSA and for the ability of providers located outside of the PSA to constrain local providers’ pricing power.<sup>26</sup> The HPC’s finding that a significant number of patients seek care at Partners’ hospitals outside of Hallmark’s PSA, rather than suggesting a flaw in the PSA definition, indicates that Partners is a viable choice for these residents and that the merger of Hallmark and Partners may eliminate a competitive constraint on their ability to raise prices. This type of analysis based on customer locations is consistent with

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component to successful implementation of the PHM model and the Affiliation will be tighter integration of the physicians and other practitioners . . . on the medical staffs of HHS and the Partners hospitals. [. . .] This closer alignment will enable the Practitioners to work more closely together and to function effectively under an integrated PHM model . . . [and] support a “right care, right site” strategy for all patients. [. . .] As of the Effective Date, the Parties agree that HHS medical staff physicians who are interested in a more integrated relationship should be offered the choice of being employed directly by (or leased to) one of the following: (a) HHC’s existing employed physician group Hallmark Health Medical Associates, Inc.; (b) the newly-created Partners community physician organization; or (c) on an exception basis, the Massachusetts General Physicians Organization, Inc.”).

<sup>26</sup> The analysis also weighs competitor hospital systems in proportion to how frequently local residents choose those hospitals for their inpatient care. As shown in the FINAL REPORT, *supra* note 5, at 22, no area hospital system would have a similarly large share of commercial discharges as Partners and Hallmark’s combined share of 47%.

methods endorsed by the Federal Trade Commission (FTC) and Department of Justice (DOJ) in the *Horizontal Merger Guidelines*.<sup>27</sup>

The HPC's market findings are also robust, transaction-specific, and provider specific. The HPC evaluated PSA market shares for two different constructions of the Hallmark PSA and the North Shore Medical Center (NSMC) PSA: a 75 percent service area based on HPC methodology; and a similarly sized service area developed by Hallmark and Partners, which the parties respectively describe as Hallmark and NSMC's "primary service area."<sup>28</sup> The HPC also evaluated a range of potential impacts on negotiating leverage and incentives, reflecting the current joint contracting relationship between Partners and Hallmark.<sup>29</sup> In all of these circumstances, the analysis shows that Partners has, by a substantial margin, the highest share of commercial discharges in each PSA, which would only be reinforced by the proposed transaction.

These projected impacts are also provider and transaction-specific. Contrary to the parties' claims, the HPC's PSA methodology will not always result in high market shares for merging parties,<sup>30</sup> nor will it always imply large changes in concentration following their merger. For example, the same analysis of a merger between Hallmark and any of the other downtown academic medical centers would not yield concentration levels or changes in concentration as large as the ones for a merger between Hallmark and Partners. Nor would the same analysis of Partners' recent acquisition of Cooley Dickinson Hospital yield comparable changes in concentration.

The proposed settlement does not "change entirely" the outcome of the market concentration analysis, either. As explained in the section above, it is unclear that component

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<sup>27</sup> HORIZONTAL MERGER GUIDELINES, *supra* note 20, at 14. "When the hypothetical monopolist could discriminate based on customer location, the Agencies may define geographic markets based on the location of the targeted customers . . . . When the geographic market is defined based on customer locations, sales made to those customers are counted, regardless of the location of the supplier making those sales."

<sup>28</sup> FINAL REPORT, *supra* note 5, at 45-50.

<sup>29</sup> As noted in the Final Report, Partners' bargaining incentives once it owns Hallmark (and Hallmark's revenue) are likely to differ from its incentives under its current affiliation with Hallmark. *Id.* at 46. The Written Response characterizes this statement as "unsupported." Written Response, *supra* note 19, at 13. To the contrary, differences in incentives between principals and agents are widely studied in economics, as it is well-understood that the objectives of a principal (here, Hallmark) and an agent (here, Partners as the entity negotiating on Hallmark's behalf) are often not fully aligned. See, e.g., David E.M. Sappington, *Incentives in Principal-Agent Relationships*, 5 J. ECON. PERSPECTIVES, 45 (1991), available at <http://www.isr.umd.edu/~hyongla/TMP/PAPERS/IncentivesPrincipalAgentRelationship.pdf> (describing some sources of key incentive problems that arise in agency relationships, such as asymmetry of the principal's and agent's pre-contractual information or beliefs, differences in risk aversion, and problems in measuring the agent's performance). After Partners owns Hallmark, and is no longer Hallmark's agent in payer contract negotiations, we would expect that their incentives would be more fully aligned.

<sup>30</sup> In analyzing hospital PSAs throughout the state, the HPC found that a provider system's market share within its hospital PSAs can range from 6% to over 60%. This shows that, contrary to the parties' claims, the HPC's PSA methodology is not structured in a way "that can reliably be expected to produce erroneously high market shares and, therefore, erroneously high market concentration." Written Response, *supra* note 19, at 11. Rather, higher shares properly reflect greater consumer use and preference for certain providers over others, and thus how directly different providers compete.

contracting will effectively address the exercise of Partners' bargaining leverage reflected in our market analysis. Moreover, like the other provisions of the proposed settlement, component contracting is time delimited, after which point any argument for representing shares of components within the Partners system separately would be moot. Representing the shares of each component separately would thus understate the likely competitive impact of the transaction.

Finally, the HPC's market analysis is probative of pricing power. By asserting that the connection between concentration and price is not well-supported, the Written Response mischaracterizes fundamental economic principles that underlie the widely-accepted view that, in a broad set of circumstances, across a rich variety of industries, increased concentration results in higher prices. Indeed, the concentration thresholds and safe harbors in merger enforcement policy, which are used to provide guidance for all mergers (including hospital mergers), are predicated on this view. In particular, the Written Response faults the HPC for seemingly relying on a single study as evidence of a positive correlation between price and concentration, and characterizes this study as failing to "support a conclusion there is any systematic relationship between price and concentration."<sup>31</sup> For conciseness, given the well-accepted correlation between increases in concentration and higher prices, the HPC elected to cite this one exemplar review (itself summarizing 13 empirical studies) as well as a 2004 report by the FTC and DOJ for this well-established economic principle.<sup>32</sup> Contrary to the Written Response's characterization, the authors of that exemplar review summarized their findings as follows:

Research suggests that hospital consolidation in the 1990s raised prices by at least five percent and likely by significantly more. The great weight of the literature shows that hospital consolidation leads to price increases, although a few studies reach the opposite conclusion. Studies that examine consolidation among hospitals that are geographically close to one another consistently find that consolidation leads to price increases of 40 percent or more.<sup>33</sup>

The 2012 update to this review further states:

Increases in hospital market concentration lead to increases in the price of hospital care. [. . .] Since the 2006 report, several econometric studies have revisited the relationship between price and hospital concentration, using data from a variety of sources, thereby expanding the geographic scope of the evidence base. [. . .]

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<sup>31</sup> Written Response, *supra* note 19, at 15.

<sup>32</sup> FINAL REPORT, *supra* note 5, at 50, note 188 and 48, note 184, quoting a Department of Justice and Federal Trade Commission report on competition in healthcare that explains that "[m]ost studies of the relationship between competition and hospital prices generally find increased hospital concentration is associated with increased price." U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, IMPROVING HEALTHCARE: A DOSE OF COMPETITION 1, 15 (2004), available at <http://www.ftc.gov/reports/healthcare/040723healthcarerpt.pdf>.

<sup>33</sup> WILLIAM B. VOGT & ROBERT TOWN, ROBERT WOOD JOHNSON FOUND., HOW HAS HOSPITAL CONSOLIDATION AFFECTED THE PRICE AND QUALITY OF HOSPITAL CARE? 4 (2006), available at [http://www.rwjf.org/content/dam/farm/reports/issue\\_briefs/2006/rwjf12056/subassets/rwjf12056\\_1](http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2006/rwjf12056/subassets/rwjf12056_1).

The more recent evidence comes from more states (Florida, Massachusetts) and from the entire United States.<sup>34</sup>

Numerous other sources also support the finding that there is a positive correlation between price and concentration changes.<sup>35</sup>

## 2. The HPC's market analysis is consistent with applicable guidelines and precedent

The HPC's use of PSAs for its market analyses is consistent with the function of CMIRs, the HPC's statutory mandate, and relevant antitrust precedent and guidelines. One of the core functions of a CMIR is to serve as a screening tool to determine those transactions that warrant further review – whether for antitrust or other concerns – “to protect consumers in the health care market.”<sup>36</sup> Thus, the HPC's market analyses are intended to complement and serve as a primer to, not fully replicate, the work of law enforcement authorities. The HPC's use of PSAs robustly fulfills this screening function.

The HPC's approach is also consistent with antitrust guidelines, particularly those designed to test the competitive effect of transactions motivated by greater accountable care for patients (such as the current transaction). The FTC and DOJ have endorsed using analysis of PSA market shares as an initial screen to a full antitrust analysis. Specifically, their proposed guidelines for evaluating the competitive impact of accountable care organizations (ACOs) state: “As an initial step in determining whether an ACO is likely to raise competitive concerns, the Agencies will use a streamlined analysis that evaluates the ACO's share of services in each ACO

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<sup>34</sup> *Id.*

<sup>35</sup> See, e.g., MARTIN GAYNOR & ROBERT TOWN, ROBERT WOOD JOHNSON FOUND., THE IMPACT OF HOSPITAL CONSOLIDATION – UPDATE, (2012), available at [http://www.rwjf.org/content/dam/farm/reports/issue\\_briefs/2012/rwjf73261](http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2012/rwjf73261) (reviewing literature indicating that increases in hospital market concentration lead to increases in hospital prices, that mergers in highly concentrated markets generally lead to price increases, and that competition increases quality of care); Deborah Haas-Wilson & Christopher Garmon, *Hospital Mergers and Competitive Effects: Two Retrospective Analyses*, 18 INT'L J. BUS. ECON. 17 (2011), available at <http://www.smith.edu/economics/documents/Haas-WilsonGarmon.pdf>; Cory Capps, *Price Implications of Hospital Consolidation*, in THE HEALTHCARE IMPERATIVE: LOWERING COSTS AND IMPROVING OUTCOMES 177, 182 (2010) (summarizing research showing that “each 160-point increase in HHI leads, on average, to price increases of about 1 percent” in a metropolitan statistical area); Cory Capps & David Dranove, *Hospital Consolidation and Negotiated PPO Prices*, 23 HEALTH AFFAIRS, 175 (2004) (conducting a before-and-after study of 12 hospitals in various markets that participated in consolidations between 1998 and 2000 in which HHI increased by more than 500; finding that prices at all consolidating hospitals increased at a rate at least equal to the median rate of increase by other providers in the same market over the same time period; and finding that nine of the 12 consolidating hospitals increased prices by more than the median percentage); STEVEN TENN, FED. TRADE COMM'N, THE PRICE EFFECTS OF HOSPITAL MERGERS: A CASE STUDY OF THE SUTTER-SUMMIT TRANSACTION 18-20 (2008), available at [http://www.ftc.gov/sites/default/files/documents/reports/price-effects-hospital-mergers%20A0-case-study-sutter-summit-transaction/wp293\\_0.pdf](http://www.ftc.gov/sites/default/files/documents/reports/price-effects-hospital-mergers%20A0-case-study-sutter-summit-transaction/wp293_0.pdf) (conducting a retrospective review of the 1999 acquisition of Summit Hospital by Sutter medical system where the merger was estimated to result in about a 50% market share and finding that, controlling for hospital characteristics, Summit's price growth was 23% to 50% higher than other California hospitals, depending on the payer).

<sup>36</sup> MASS. GEN. LAWS ch. 6D, § 13(h).

participant's Primary Service Area ('PSA')."<sup>37</sup> The antitrust agencies explained that while a PSA does not necessarily equate with "a relevant antitrust geographic market, it nonetheless serves as a useful screen for evaluating potential competitive effects."<sup>38</sup>

Finally, the HPC's market impact analyses are also consistent with the HPC's statutory mandate. The CMIR statute directs the HPC to "examine factors relating to the provider or provider organization's business and its relative market position," including "the provider or provider organization's size and market share *within its primary service areas*," "the provider or provider organization's impact on competing options for the delivery of health care services *within its primary service areas*" and "any other factors that the commission determines to be in the public interest."<sup>39</sup> The HPC's analysis of PSA-based market shares, market concentration, and competitive effects falls squarely within these factors.

***C. The Written Response's other critiques of the HPC's cost impact analyses are without merit***

1. Services at Hallmark's facilities are anticipated to be billed at higher rates following the transaction, notwithstanding the parties' plans not to bill MGH academic rates at Hallmark-LMH.

As explained in the Preliminary and Final Reports, licensure of Hallmark-LMH and Hallmark Stoneham under MGH raises the concern that costs will increase, both for a "facility fee" and for a "professional fee." With regard to facility fees, the parties in their Written Response state that they do not plan to bill Hallmark-LMH at MGH's academic rates, instead suggesting they will bill Hallmark-LMH at "community" rates.<sup>40</sup> This clarification is consistent with, rather than contrary to, our original analysis. In our original analysis, we raised the concern that even a shift to MGH's community rates would be cost increasing, because the community rates that apply to other MGH facilities in the community are still generally higher than the rates that currently apply at Hallmark-LMH.<sup>41</sup> Thus, notwithstanding the parties' indication that they will apply MGH community rates to Hallmark-LMH, we anticipate facility fees will overall increase as a result of this transaction. Moreover, the parties did not address Stoneham Cancer Center in their Written Response, so more information is needed as to whether MGH academic rates or MGH community rates (both of which would be cost increasing) would apply to this facility, or another rate altogether. Finally, regarding professional fees, the parties

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<sup>37</sup> See FED. TRADE COMM'N & U.S. DEPT. OF JUSTICE, PROPOSED STATEMENT OF ANTITRUST ENFORCEMENT POLICY REGARDING ACCOUNTABLE CARE ORGANIZATIONS PARTICIPATING IN THE MEDICARE SHARED SAVINGS PROGRAM 5 (2011), available at <http://www.justice.gov/atr/public/guidelines/269155.pdf>.

<sup>38</sup> 76 FED. REG. 67026, 67028 (Oct. 28, 2011), available at <http://www.gpo.gov/fdsys/pkg/FR-2011-10-28/pdf/2011-27944.pdf>.

<sup>39</sup> MASS. GEN. LAWS ch. 6D, § 13(d) (emphasis added).

<sup>40</sup> Written Response, *supra* note 19, at 24 (stating that "Partners plans to bill for services at the converted LMH campus at community hospital rates" and that charging MGH rates at LMH would be inconsistent with practices at other Partners AMC-licensed community sites, including "Danvers, which is licensed by MGH but bills at community rates[,] . . . Foxborough, which is licensed by BWH and bills at community rates, and . . . Faulkner, which is a subsidiary of [BWH] but bills at community rates").

<sup>41</sup> PRELIMINARY REPORT, *supra* note 5, at 52.

acknowledge that academic physicians practicing at these sites are likely to bill higher, academic rates, which will also increase costs for payers and consumers.<sup>42</sup>

2. The HPC's projected shifts in patient site of care are robust and well-supported by available data; the parties do not offer credible alternative projections

The parties state that Partners' acquisition of Hallmark will result in overall lower spending due to care redirection from MGH back to the Hallmark community. In order to rigorously examine the likely impact of Partners' acquisition of Hallmark on patient site of care, we applied standard statistical modeling techniques to discharge data reflecting actual inpatient care referral patterns. This analysis incorporated the experience at Partners' existing community hospitals, Faulkner, Newton-Wellesley, and North Shore Medical Center, to project utilization shifts if Hallmark were to become a Partners hospital. The parties raise two main concerns with this model.<sup>43</sup>

First, the parties state that the HPC "misappropriates" this model to project patient shifts going forward. In fact, the statistical modeling techniques utilized by the HPC are standard econometric tools for predicting future behavior, and the scope of the HPC's projected shifts in discharges is consistent with Partners' own position on the potential size of such shifts.<sup>44</sup> Moreover, the model incorporates Partners' experience redirecting care, including care being redirected to Faulkner, consistent with Partners' claims that it has a successful track record of redirection.<sup>45</sup> Second, the parties state that volume moving to lower-priced Hallmark from higher-priced non-Partners AMCs should be a benefit of the transaction that would result in lower spending. Indeed, the parties are correct that some redirection effects are anticipated to reduce spending, while others are anticipated to increase spending. This mix of effects yielded the finding that net shifts in care to Hallmark, at current rates, are likely to be cost neutral. As noted in the Final Report, however, if Hallmark's rates increase, site of care effects are likely to increase costs.

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<sup>42</sup> Written Response, *supra* note 19, at 24 ("We acknowledge, however, that care will also be provided by Massachusetts General Physicians Organization . . . physicians. [ . . . ] The professional component of those services will likely be billed at academic rates.").

<sup>43</sup> See *infra* note 66 for discussion of the parties' claim that the HPC's predicted utilization shifts suggest that the HPC should weigh the quality benefits of the transaction more heavily.

<sup>44</sup> The HPC estimates that as a Partners hospital, Hallmark will receive an additional 500 to 1,400 secondary, non-emergency discharges, FINAL REPORT, *supra* note 5, at 56, note 210, which is consistent with the parties' own estimate of the number of additional discharges Hallmark will receive.

<sup>45</sup> See Written Response, *supra* note 19, at 5 (stating that "[a] principal imbalance in the Massachusetts health care delivery system today is the relative preponderance of hospital care that is provided at academic medical centers . . . rather than community hospitals," and describing how Partners will employ strategies at Hallmark similar to its practices at North Shore Medical Center and Newton Wellesley Hospital to make those community hospitals more attractive to patients than AMCs); *Id.* at 24 ("Partners has a successful track record in care redirection. Since 2009, health care spending associated with inpatient care at BWH has been reduced by approximately \$83 million through an initiative to shift secondary care volume from BWH to the Faulkner Hospital."). The HPC model is robust precisely because it incorporates this data on Faulkner, Newton Wellesley Hospital, and North Shore Medical Center to examine whether Partners has had this "successful" track record in lowering spending through care direction.

The parties' own estimates of savings from shifts in patient site of care are not credible. First, the parties' estimates focus exclusively on redirection from MGH to Hallmark, as opposed to all likely shifts in site of care as a result of this transaction.<sup>46</sup> Second, they adopt questionable assumptions regarding the size of the population that is reasonably tied to the proposed transaction. Finally, the parties confirmed that their redirection estimates are goals identified by their clinicians, and do not reflect data from Partners' experience acquiring or establishing community-based provider sites.

The parties contest the HPC's second point above regarding the appropriate population to model for care redirection savings in connection with this transaction. First, the parties state that Massachusetts General Physicians Organization (MGPO) patients living in the Hallmark service area are the relevant population upon which this transaction is premised, and that the HPC erred in not crediting the parties with savings that could be realized for this population.<sup>47</sup> While we agree that Partners may redirect some of its MGPO patients to Hallmark, it is unclear why the population cared for by MGPO – physicians Partners already employs – is the population upon which this transaction is premised and for which the transaction would change Partners' level of control. Through its existing employment of the MGPO physicians, Partners can implement improved site of care management of this population, especially in light of its longstanding clinical affiliation with Hallmark and the parties' joint participation in risk contracts, which can represent important opportunities to incentivize shifts in care to lower-cost settings.<sup>48</sup> We also note that in other contexts, such as the parties' framing of PHM savings tied to this transaction, the parties, consistent with the HPC's approach, focus on the patient population associated with *Hallmark's* physicians as the population and physicians over whom Partners will exercise additional control as a result of this transaction.

Second, the parties state that the HPC did not consider savings available for government payer patients. We agree that this is a topic that would benefit from further inquiry. The nature of any cost impact from redirection of government payer patients depends on several important facts not available for our review. First, as discussed in Sections IV.A.3 and IV.A.4 of the Final Report, we expect commercial rates for the Hallmark facilities to increase in connection with this transaction. We expect the government rates for some of these facilities to change as well, as they are proposed to be licensed under and operated by MGH. Since care redirection savings depend on the Hallmark facilities remaining lower-priced, without further information from the parties regarding the government rates that would apply, we are unable to assess the scope of

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<sup>46</sup> As discussed in Section IV.A.5 of the Final Report, our analysis indicates that substantial redirection is likely to occur between non-Partners hospitals and Hallmark, the cost impact of which is not included in the parties' projections.

<sup>47</sup> Written Response, *supra* note 19, at 24-25.

<sup>48</sup> The parties' position that they need to own the destination hospital in order to effectively manage the referral practices of their own physicians is challenged by other provider models in the Commonwealth that represent alternative approaches to corporate integration for effectively coordinating care delivery. These include successful physician-only organizations that, by definition, do not own the destination hospital with which their physicians coordinate care delivery. See MASS. HEALTH POLICY COMM'N, REVIEW OF PARTNERS HEALTHCARE SYSTEM'S PROPOSED ACQUISITIONS OF SOUTH SHORE HOSPITAL (HPC-CMIR-2013-1) AND HARBOR MEDICAL ASSOCIATES (HPC-CMIR-2013-2), PURSUANT TO M.G.L. C. 6D, § 13, FINAL REPORT 56 (Feb. 19, 2014), available at <http://www.mass.gov/anf/docs/hpc/20140219-final-cmir-report-phs-ssh-hmc.pdf>.

potential savings for government payer patients. Second, even if Hallmark maintains lower government rates, savings for government payer patients, like commercially insured patients, will only accrue if the parties achieve a *net* redirection of care from MGH to Hallmark. We do not have information from the parties, or our own analysis of site of care preferences among commercial patients, to suggest such net redirection is likely. The HPC's Final Report thus includes updated text clarifying that this is a topic that would benefit from further inquiry, but in the absence of evidence from the parties, we are unable to include findings regarding the likelihood or scope of any such savings.<sup>49</sup>

Finally, we note again that the parties have consistently advocated for this transaction on the basis that it will lower total medical spending. If the parties believe this transaction will result in net care redirection that lowers total medical spending, they should consider committing to a lower level of total medical spending across all books of business for the operations and providers described in their transaction materials, whom they state will achieve this lowered spending.

***D. The parties have not provided key information for the HPC to credibly conclude that desired PHM savings from this transaction will offset documented spending increases***

As discussed above and in the Final Report, this transaction is anticipated to result in increases in total medical spending in northeastern Massachusetts of \$15.5 to \$23 million annually for the three largest commercial payers. In their Written Response, the parties provide a new estimate of \$21 million in average annual savings from proposed PHM initiatives that they state will offset these costs.<sup>50</sup> The general program descriptions and literature review the parties provide lack basic implementation information to support the parties' estimate and to allow the HPC to assess its reasonableness. While the proposed programs may provide value to the public in terms of improved quality of and access to care, irrespective of their savings potential, the public must assess whether the proposed transaction is necessary to achieve such benefits, and weigh their value against the anticipated cost and market impacts described above.

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<sup>49</sup> We also note that while savings for government payer patients could reduce the burden of health care spending for state and federal government, such savings would not be passed along to employers and consumers in the same manner as savings for commercially insured patients.

<sup>50</sup> As indicated in the Preliminary Report, in response to the HPC's detailed request for the parties' projections of the transaction's impact on health care costs, the parties originally estimated average gross savings of \$10.9 million per year from PHM programs, and provided a model used to calculate this estimate. PRELIMINARY REPORT, *supra* note 5, at Section IV.A.6. Notwithstanding the HPC's direct requests for this information and the parties' obligation to update the HPC with new relevant information in the course of the HPC's review, the parties did not provide their new estimate of PHM savings until their Written Response. We note that the ability of the HPC and the public to evaluate proposed transactions depends upon the accuracy of information presented by providers, and that providers have an obligation to update responses to HPC information requests as new relevant information becomes available.

1. Claims that care delivery initiatives will achieve specific levels of savings should be adequately supported by relevant information, especially in light of the mixed efficacy of PHM reforms to date

The parties mischaracterize the HPC's analysis of their plans for PHM as an effort to "stand in the way" of care delivery reform. In fact, the HPC supports and promotes care delivery reform initiatives at community hospitals across the Commonwealth, including at Hallmark.<sup>51</sup> The HPC has consistently stated that care delivery reforms have the potential to drive efficiencies and facilitate higher-quality health care, and we commend the parties for affirming this shared priority. The questions raised in our Preliminary Report, and which remain in this Analysis, reflect the fact that the parties' estimated savings from their proposed PHM initiatives are not adequately supported by relevant information. Such information need not be based on the parties' prior experiences, but must reflect reasonable assumptions and be sufficiently robust to show how the parties arrived at their estimates. This is particularly important given the variability in the results of PHM interventions by the parties and other providers<sup>52</sup> and the fact that the transaction is otherwise expected to be substantially cost-increasing.

2. The program descriptions provided by the parties in their Written Response are not sufficient for the HPC to validate the parties' new savings estimates

New care delivery models are most likely to be successful where such programs are based on concrete implementation plans that include measurable goals and other evidence-based benchmarks. The parties provide new descriptions of the types of PHM reforms Partners is implementing or planning to implement.<sup>53</sup> While the descriptions provide general information about care delivery reforms, they lack basic implementation information, such as the parties' methods for identifying populations for care management, an assessment of the number of patients who would participate in a given program, the clinical outcomes that would result in savings, methods to measure progress, the timeframe for deployment in Hallmark's service area, and the expected costs of implementation. These are basic components of any care delivery reform initiative. The parties indicate that "the lack of granular detail regarding Partners' PHM programs for the Transaction is not indicative of any lesser commitment to this important care delivery initiative. It is rather a matter of timing and, in fact, a reflection of Partners' approach of investing due time for careful planning and thoughtful preparation of an implementation

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<sup>51</sup> In January 2014, the HPC awarded Hallmark \$749,360 to fund innovative care delivery reforms to enhance clinical management of behavioral health patients. Hallmark additionally is eligible for CHART Phase 2, a \$60 million opportunity currently under procurement that seeks to expand care delivery reforms. See *CHART Phase 1 Awardees*, MASS. HEALTH POLICY COMM'N, <http://www.mass.gov/anf/docs/hpc/20140108-chart-phase-1-awardee.pdf>.

<sup>52</sup> See FINAL REPORT, *supra* note 5, at 65 note 241 (Partners' CMS Care Management for High Cost Beneficiaries Demonstration project resulted in net savings at MGH, but costs exceeded savings at NSMC); see also JENNIFER SCHORE, ET AL., MATHEMATICA POLICY RESEARCH, INC., FOURTH REPORT TO CONGRESS ON THE EVALUATION OF THE MEDICARE COORDINATED CARE DEMONSTRATION (Mar. 2011) (similar programs have produced a range of utilization and cost results).

<sup>53</sup> Written Response, *supra* note 19, at Appendix B. The parties indicate that the programs discussed are ones "Partners is implementing throughout its system." It is unclear to what extent Hallmark already participates in these programs as part of PCHI, and most of the program descriptions do not discuss how they would be extended into Hallmark's service area.

plan.”<sup>54</sup> As the HPC acknowledged in the Preliminary Report, “[w]e agree that careful planning is necessary, and that modifying new care delivery models as they progress is often advisable.”<sup>55</sup> However, when a provider projects substantial savings from a PHM program before developing an implementation strategy, we are unable to validate the reasonableness of the projection.<sup>56</sup>

The HPC is also unable to assess the parties’ new savings estimate because the parties omit the underlying calculations. The parties state their new estimate, approximately double their original estimate, was calculated by applying certain per member per month (PMPM) savings for each of their PHM programs to the Hallmark population, and then totaling these savings to arrive at the new estimate of \$21 million in average annual savings.<sup>57</sup> Their response omits several critical components:

- They do not include their estimates of the patient population that will participate in each program.<sup>58</sup> Without estimates of the relevant population, we cannot assess whether the parties’ expectations about participation in their programs are reasonable given the characteristics of Hallmark’s patient population.<sup>59</sup>
- They do not include per-program PMPM savings amounts, instead grouping programs together with average PMPM figures.<sup>60</sup> The programs the parties have grouped together differ significantly (e.g. palliative care and mental health integration), making it

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<sup>54</sup> *Id.* at 19.

<sup>55</sup> PRELIMINARY REPORT, *supra* note 5, at 59.

<sup>56</sup> The parties state generally that their programs, and their estimated savings, are based on Partners pilot projects or on published research referenced in Appendix C of the parties’ Written Response. They have not provided any supporting information for this statement, such as descriptions of the designs of those pilots and how they relate to the parties’ proposed programs, that would allow the HPC to assess whether and to what extent those pilots support the design of the proposed initiatives and the parties’ savings estimates. Likewise, the studies the parties cite that include cost estimates describe very specific patient populations, implementation infrastructures, and care management strategies. *See, e.g.*, Benjamin G. Druss, et al., *Budget Impact and Sustainability of Medical Care Management for Persons with Serious Mental Illnesses*, 168 AM. J. PSYCHIATRY 1171, 1172 (2011) (management of 205 patients with serious persistent mental illnesses by two nurse practitioners with caseloads of approximately 75 patients each, using motivational interviewing and action plans designed to assist with lifestyle changes and access to primary care). The information gap between the detailed cited studies and the parties’ high-level description of their own proposals is illustrative of the challenges in validating the parties’ savings projections.

<sup>57</sup> Written Response, *supra* note 19, at 20.

<sup>58</sup> Although the parties claim their PMPM savings estimates were “applied to the primary care lives managed by [Hallmark,]” most of the programs the parties describe would focus on subsets of Hallmark’s general population, including high-cost patients (iCMP), patients at the end of their lives (palliative care), patients with specific chronic conditions (heart failure, diabetes, and hypertension monitoring), and patients with behavioral health conditions. *Id.* at 20, 22-23 and Appendix B. In addition, several of these programs are likely to overlap and serve the same patients; it is unclear whether the parties’ savings estimates account for this possibility, and some of the program savings may be double-counted as a result.

<sup>59</sup> If the parties estimated their savings based on pilot programs, it is not clear whether they have accounted for differences between the health and demographic characteristics of the pilot populations and the populations they expect to serve in Hallmark’s service area.

<sup>60</sup> Because the parties do not provide population estimates, we cannot “back out” PMPM savings for each program by dividing the parties’ estimated total annual program savings by the populations they expect to serve. The parties also indicate that their programs will reduce utilization across several types of care, including inpatient, outpatient, emergency, and non-acute care. They do not provide any insight as to how much they expect to save in any service area (e.g. reduction in ED visits, fewer observations), or how such savings would substantiate their total savings figure of \$21 million per year.

unrealistic to assume that each program in a group would have the same PMPM savings. Without program-specific PMPM estimates, we cannot assess whether the parties' expectations about the cost savings they will achieve are reasonable.<sup>61</sup>

- It is unclear whether they account for the costs of implementing and maintaining each program. Without program cost estimates, we cannot assess to what extent those costs will impact the programs' net savings.

Without these components, we are unable to assess whether the parties' stated savings are reasonable.<sup>62</sup> As we note in the Final Report, while some of the proposed PHM initiatives may generate savings, the parties have not demonstrated the likelihood that savings from their proposed PHM initiatives will offset spending increases from this transaction.

### 3. The HPC gives due credit to the potential for this transaction to result in clinical quality improvement

The parties state in their Written Response that the HPC has conducted a "limited evaluation of the Transaction" and that we have not appropriately accounted for the "improved services and patient care, quality, and efficiency" that would result from the transaction.<sup>63</sup> The HPC explicitly evaluated the potential quality benefits of the transaction, including those associated with the PHM initiatives.<sup>64</sup> As the parties note, these potential benefits are difficult to quantify with a dollar value; even evaluating the degree of likely improvement on recognized quality metrics is difficult, as the parties do not provide specific quality goals.<sup>65</sup> Nevertheless, we have consistently credited the parties where we have observed the potential for quality

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<sup>61</sup> If the parties had provided PMPM savings estimates for each program, we would compare the parties' savings projections to the savings achieved in recent successful care delivery initiatives, either piloted by the parties or documented in published literature. The articles documenting PHM cost savings that the parties cite in support of their PHM programs universally evaluate savings on a per-patient basis. *See* David Arterburn, et al. *Introducing Decision Aids at Group Health Was Linked to Sharply Lower Hip and Knee Surgery Rates and Costs*, 31 HEALTH AFFAIRS 2094, 2099 (2012) (discussing average cost of care per patient over one year); Richard Brumley, et al. *Increased Satisfaction with Care and Lower Costs: Results of a Randomized Trial of In-Home Palliative Care*, 55 J. AM. GERIATRIC SOC. 993, 998 (2007) (discussing total costs per patient and costs per patient per day); Benjamin G. Druss, et al., *Budget Impact and Sustainability of Medical Care Management for Persons with Serious Mental Illnesses*, 168 AM. J. PSYCHIATRY 1171, 1175 (2011) (discussing per patient per year cost savings); David Wennenberg, et al., *A Randomized Trial of a Telephone Care-Management Strategy*, 363 NEW ENGL. J. MED. 1245 (2010) (discussing per member per month savings and program costs).

<sup>62</sup> The HPC has been able to estimate a population and associated savings for one potential PHM model in Hallmark's service area. As discussed in the Preliminary Report, if we assume that Hallmark's Medicare population is similar to that of MGH, and that Partners could achieve the level of success associated with the most successful MGH pilot population in the CMHCB Demonstration, extending a similar program to Hallmark's population could result in annual savings of up to \$4.4 million. Alternately, if Hallmark's performance were similar to that of NSMC in the same pilot project, costs could increase by up to \$1.1 million per year. PRELIMINARY REPORT, *supra* note 5, at Section IV.A.6.c.

<sup>63</sup> Written Response, *supra* note 19, at 27.

<sup>64</sup> *See* PRELIMINARY REPORT, *supra* note 5, at Section IV.B.

<sup>65</sup> *See Id.* at 65-66 ("While the parties have not specified how [a] joint management structure will result in quality improvement, it is reasonable to expect it will facilitate the sharing of quality-improving best practices . . . Although the parties did not provide specific quality goals for these initiatives, we recognize the potential for PHM initiatives to facilitate high quality care delivery").

improvement,<sup>66</sup> and the public can weigh this potential against the costs associated with the transaction.<sup>67</sup>

In summary, the parties' new estimate of savings from their proposed PHM initiatives lacks key supporting information. This support is particularly important in light of the mixed cost impacts of the parties' prior PHM interventions and the significant cost increases associated with this proposed transaction. As we fully acknowledge in the Final Report, some of the proposed PHM initiatives may generate cost savings and/or quality benefits.<sup>68</sup> However, given the lack of information provided by the parties, we find that they have not demonstrated the likelihood that PHM savings will offset the costs of this transaction.

**II. Access Impact. The HPC has consistently recognized the general potential for this transaction to improve access to care, but must also identify any major areas where the parties have failed to provide sufficient information to allow the public to assess the likelihood that such potential will be realized.**

As described in the Final Report, the HPC recognizes that there is significant potential for the parties' plans to improve access to primary care and other services. In particular, the HPC commends Partners for its longstanding commitment to behavioral health, and notes the Written Response clarifies that behavioral health services will likely not be reduced, and may increase, as a result of this transaction. However, the HPC presented concerns in its Preliminary Report that relocating behavioral health services may have an adverse impact on access to these services for vulnerable populations. We also noted that while the parties' plans to improve access to services held significant potential, the extent to which that potential is realized would be driven by details of implementation that were not available for the HPC's review. The HPC invited the parties to respond to these concerns by detailing their plans to recruit new primary care and behavioral health providers; alleviate transportation barriers for vulnerable patients; ensure continuity of care; and assess community need for services, including for services the parties propose to redirect or expand. While the Written Response provides additional information regarding retention of certain services, and outpatient behavioral health services in particular, it leaves many of the questions raised by the HPC unanswered, the responses to which are critical to public assessment of this transaction.

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<sup>66</sup> We have credited the parties' quality performance wherever supported by evidence. On page 28, note 43 of the Written Response, the parties assume credit in one respect that mischaracterizes the HPC analysis. The parties describe the "Partners effect" identified in the HPC's econometric modeling as evidence of higher quality at Partners hospitals. This was not our finding. The HPC's model showed that, controlling for other factors, patients tend to choose Partners hospitals for care more frequently than other hospitals. As the Preliminary Report indicated, the model does not examine why patients go to Partners hospitals. A variety of factors may influence where a given patient receives care, including brand, quality, investments, service offerings, physician referrals, and others. *See Id.* at 53, note 193.

<sup>67</sup> Significant cost burdens are not a prerequisite to achieving quality improvement. For example, as the HPC examined in its 2013 Cost Trends Report, many hospitals in Massachusetts provide high-quality care at relatively low expense. MASS. HEALTH POLICY COMM'N, 2013 COST TRENDS REPORT, PURSUANT TO M.G.L. C. 6D, § 8(G), ANNUAL REPORT 31 (Jan. 2014), available at <http://www.mass.gov/anf/docs/hpc/2013-cost-trends-report-full-report.pdf>.

<sup>68</sup> *See* FINAL REPORT, *supra* note 5, at Section IV.B.

**A. The Written Response includes additional information regarding the range of behavioral health services to be offered and suggests a general opportunity to increase quality of and access to behavioral health services. It does not include critical information or commitments necessary for the HPC to evaluate the extent to which the parties may realize this opportunity.**

In response to the HPC's request for further detail on the parties' plans for behavioral health services,<sup>69</sup> the parties included some additional information in their Written Response. With regard to inpatient services, the parties did not provide new information or commitments that would allow the HPC to assess important questions such as the transaction's anticipated impact on inpatient behavioral health capacity. The parties reiterated their previous position that NSMC-Union will "accommodate the current psychiatric beds at LMH and at Salem," and that NSMC-Union will have "up to 17 new beds."<sup>70</sup> The Written Response thus confirms that the transaction will not result in a net reduction in psychiatric beds, and that the parties have not yet committed to a minimum number of new beds.<sup>71</sup> The parties also reproduced information indicating their plans may involve a shift in the mix of behavioral health beds, with a potential decrease in geriatric beds and a potential increase in adult beds. We did not receive any information regarding the need for or anticipated impact of such a shift.

The Written Response includes new information on outpatient behavioral health services. The parties identify certain outpatient services to be offered at NSMC-Union,<sup>72</sup> NSMC-Salem,<sup>73</sup>

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<sup>69</sup> The Preliminary Report specifically requested "[a] detailed description of plans for enhancing access to behavioral health services, including any plans to expand inpatient behavioral health capacity, to retain and/or expand existing outpatient behavioral health capacity (e.g., intensive outpatient, partial hospitalization, and nursing home psychiatric consultation services currently offered by Hallmark), to allocate behavioral health services toward specific populations (e.g., whether the current mix of behavioral health beds for children, adolescents, adults, and geriatric patients is anticipated to change), to integrate behavioral health with primary care and other medical care, to hire additional behavioral health clinicians, and to clinically integrate behavioral health services in the region with those provided at McLean/MGH and/or other Partners providers (e.g., any plans for shared staffing, referrals, exchange of best practices)." PRELIMINARY REPORT, *supra* note 5, at 72.

<sup>70</sup> Written Response, *supra* note 19, at 16-17. The parties also state that the transaction will "ensur[e] the preservation of licensed inpatient beds at MWH that will provide medical psychiatric care," *id.* at 16, though we do not know whether the parties will retain all or a subset of MWH's current psychiatry beds.

<sup>71</sup> Other health care systems in the Commonwealth have publicly committed to expanding behavioral health capacity, including Southcoast Health (Press Release: Southcoast Health announces inpatient behavioral health hospital in Dartmouth (Aug. 5, 2014), available at <http://www.southcoast.org/news/releases/2014/2014-0805.html> (describing plans to build a 120-bed behavioral health hospital)); Steward Health Care System (Liz Kowalczyk, *Steward Health Care expanding psychiatric facilities*, BOSTON GLOBE, Aug. 7, 2014, available at <http://www.bostonglobe.com/metro/2014/08/06/hospitals-expanding-psychiatric-units/FCKNHUP5thhG93ncAUaYeM/story.html> (describing the addition of 40 adult behavioral health beds and plans to add 30 more beds in the next nine months)); MetroWest Medical Center (Jonathan Phelps, *Psychiatric care to expand at MetroWest Medical in Natick*, METROWEST DAILY NEWS, Aug. 8, 2014, <http://www.metrowestdailynews.com/article/20140808/NEWS/140807384> (describing plans to add 14 adult behavioral health beds at Leonard Morse Hospital)).

<sup>72</sup> The parties indicate that NSMC-Union would integrate mental health services with primary and specialty care through the NSPG Center of Excellence in Primary Care and offer intensive outpatient programs for pediatric, adolescent, and adult patients. Written Response, *supra* note 19, at 17.

<sup>73</sup> The parties indicate that NSMC-Salem would offer psychiatric urgent care, psychiatric emergency services, and close coordination of outpatient behavioral health and primary care. *Id.* at 17-18.

and Hallmark.<sup>74</sup> The parties also state that NSMC-Union will provide expanded pediatric and geriatric outpatient services and expanded partial hospitalization services, while Salem will have expanded adult and pediatric mental health and substance abuse services, neuropsychology evaluation services, and “Patient Navigator” services.<sup>75</sup> This additional information still lacks critical detail regarding how the parties will approach implementation, such as any planning they have conducted regarding staffing, funding levels, patient volume, or the scale and scope of the proposed outpatient expansions.

With regard to behavioral health quality, as noted in the Final Report, available data reflect that Partners has high behavioral health care quality while Hallmark’s quality is lower,<sup>76</sup> suggesting an opportunity to enhance the quality of behavioral health care in northeastern Massachusetts. The Written Response includes a brief overview of Partners’ plans for mental health integration with primary care, in which they describe core elements of this initiative intended to enhance the quality of behavioral health care within the Partners system. Beyond this overview, we did not receive further information on how the parties may achieve this potential to improve behavioral health quality in northeastern Massachusetts, such as how they may share best practices between Partners and Hallmark, or how they may effectively integrate successful behavioral health programs and services at other Partners providers (e.g., McLean and MGH) with NSMC-Union.

In sum, general information the parties provided regarding their behavioral health plans indicates that overall inpatient and outpatient capacity is likely to be retained, and may be expanded, in connection with this transaction, and the mix of behavioral health beds may shift to include more adult beds and fewer geriatric beds. This information suggests the potential for service enhancements that could improve the quality of and access to behavioral health services. However, the extent to which the parties realize such potential will be driven by key implementation decisions and firm commitments that are not available for our review. Without this critical information, the HPC is unable to assess whether such potential will be realized.

***B. The parties provide a high-level response regarding their approach to determining community need for services, and have not shown how or whether that approach substantiated decisions to invest over \$300 million at Hallmark, including expansion of specific service lines.***

The parties have stated that in many cases, their plans will develop as programs are deployed and community needs are assessed. We agree that careful planning is necessary, and that modifying new care delivery models as they progress is often advisable. It is for this reason

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<sup>74</sup> The parties indicate that Hallmark would offer outpatient adult psychiatric and pharmacological services, geriatric and adult intensive outpatient services, nursing home consultation services, a crisis team, the Center for Healthy Minds, and the integration of behavioral health and primary care services. *Id.* at 18.

<sup>75</sup> *Id.* at 17.

<sup>76</sup> As noted in the Final Report, the HPC examined four available measures of the quality of inpatient care for patients admitted for behavioral health treatment. On measures of the use of post-discharge care plans, in particular, MGH and McLean performed extremely well compared to state and national benchmarks, while Hallmark’s performance was substantially lower. FINAL REPORT, *supra* note 5, at 29.

the HPC asked the parties to provide their planned methods for assessing community needs,<sup>77</sup> noting in the Preliminary Report that a community assessment the parties commissioned did not evaluate or document any gaps between health care service needs and existing service capacity.<sup>78</sup> Reviewing this methodology would have allowed the public to evaluate its adequacy, acknowledging that the parties have not yet finalized all details of their proposed changes to care delivery. In response, the parties generally described their approach to planning for two service line changes—the shift of short-stay inpatient services from MGH to Hallmark and the shift of low-acuity cases from emergency departments to an urgent care setting—and stated: “Partners and HHS anticipate that future evaluations regarding the community need for services would begin with a similar analytic approach, with an evaluation of the local demographics, clinical needs of the population, the available capacity, the most appropriate site for the delivery of care, and the potential for offering the needed services in an appropriate, lower cost setting. These evaluations would also include input from clinical leadership as well as other clinical staff (for example, an evaluation of the need for an Emergency Department would likely include input not only from emergency physicians but also from local Emergency Medical Technicians), and a process would be developed to consult and confer with other stakeholders as appropriate, depending on the proposed area under discussion.”<sup>79</sup>

Given the high-level nature of this response, it is difficult for the HPC or the public to assess the adequacy of the parties’ planned approach to evaluating need and engaging with the community on important care delivery changes that are not yet finalized.<sup>80</sup> Perhaps more importantly, the parties do not provide support for how service lines they have already identified for expansion at Hallmark, such as orthopedics, cardiology, gastroenterology, and \$45 million in expanded oncology services at a new MGH Stoneham Cancer Center, underwent an appropriate needs assessment to assess whether there is unmet need in the community for such services. The

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<sup>77</sup> The Preliminary Report specifically requested “[a] detailed description of methods to assess, with diverse stakeholder input, community need for emergency services in Lynn and Medford beyond the parties’ two to three year commitment to maintain such services, need for and impact of plans to shift volume from emergency departments to urgent care centers, unmet community need for services the parties propose to expand (such as orthopedics and gastroenterology), community need for services the parties propose to redirect (e.g., services that require inpatient stays of longer than three days redirected from Hallmark-LMH), and community need for services tailored to vulnerable populations (e.g., services for patients with language and cultural barriers to care).” PRELIMINARY REPORT, *supra* note 5, at 72.

<sup>78</sup> As noted in the Final Report, the parties commissioned a community assessment that discusses general health concerns and prevalence of certain conditions in Hallmark’s service area. That assessment highlights community concerns about access to services for vulnerable populations and to behavioral health services. The assessment also identifies physical health conditions prevalent in the community, including cancer, cardiovascular disease, diabetes, and obesity. However, the assessment does not evaluate or document gaps between health care service need and existing capacity, and therefore cannot substitute for a robust methodology to assess the relative need for different services. FINAL REPORT, *supra* note 5, at 37.

<sup>79</sup> Written Response, *supra* note 19, at 26.

<sup>80</sup> These include assessment of which medical-surgical services to move from Hallmark-LMH, the level of need for services tailored to vulnerable populations, and the level of need for emergency services in Lynn and Medford beyond the parties’ short-term commitment. Even if the parties successfully shift all appropriate ED cases to an urgent care setting, certain emergency cases will remain. Specifically, the parties have indicated that lower acuity cases amenable to treatment at an urgent care center account for “up to 65%” of Hallmark’s ED visits, leaving a small but significant number of patients in need of emergency care. *Id.* at 25. The parties have not shared specifics of how they will evaluate need for these services and engage with the community regarding this ongoing issue.

HPC remains concerned, in the absence of a robust and reliable methodology for assessing community need, that certain services may be expanded for purposes other than addressing unmet community need.

***C. The parties have not shared plans to mitigate transportation barriers for vulnerable populations.***

In response to the HPC's concerns about transportation limitations that could impose a barrier to care for relocated inpatient behavioral health services,<sup>81</sup> the parties provide the description of their general planning approach quoted above, stating that "a similar approach would be used in evaluating and planning for patient and family transportation needs and developing specific plans to ensure continuity of care" and that "[a]ppropriate transportation plans will be developed in order to ensure continued access to, and continuity of care for, these vulnerable populations." They also note that "[t]he lack of psychiatric inpatient resources statewide makes it very difficult for patients to obtain behavioral health care in their local communities, and many, if not most, must travel some distance to obtain needed care."<sup>82</sup>

While the parties have stated that many patients must currently travel outside their local communities to obtain needed care, the HPC found that for the facilities that are the subject of this transaction – Hallmark and NSMC – a significant proportion of behavioral health discharges originate from a compact area around each hospital campus.<sup>83</sup> Given that Hallmark and NSMC serve a high mix of government payer patients, who are often local residents who are low-income, elderly, and/or disabled, and given the unique vulnerabilities of behavioral health patients, a significant increase in transportation complexity and travel time raises potentially serious access problems. The parties have not shared plans, or a detailed approach to generating plans, that reflect an appreciation for the access issues the re-alignment poses for these particular communities, and the HPC therefore remains concerned about the potential impact of this transaction on these vulnerable populations.

***D. Additional information provided by the parties clarified Hallmark's financial position, but questions remain concerning the scope of needed investments***

In their Written Response, the parties provided more recent information indicating that Hallmark's net patient service revenues (NPSR) declined in fiscal year (FY) 2013, and that this trend has continued in FY 2014. Based on our review of Hallmark's newly provided FY 2013

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<sup>81</sup> The Preliminary Report specifically requested a "description of plans to ensure continuity of care for patients whose care location is anticipated to change, including plans to ensure that behavioral health patients presenting at emergency departments or urgent care centers receive prompt and appropriate treatment, and plans to ensure that patients who rely on public transit or otherwise lack sufficient access to transportation can continue to access services after reconfiguration (e.g., non-mobile, elderly, and/or complex psychiatric patients who previously received services at Hallmark-LMH and are diverted to the more distant NSMC-Union)." PRELIMINARY REPORT, *supra* note 5, at 72.

<sup>82</sup> Written Response, *supra* note 19, at 3, 17.

<sup>83</sup> FINAL REPORT, *supra* note 5, at 35.

audited financial statement,<sup>84</sup> the HPC's Final Report reflects our revised assessment of Hallmark's financial position, which cannot be described as "improving" in light of the recent downturn in operating performance.<sup>85</sup> These recent operating challenges may in part reflect market changes, as operating margins for most hospitals in Massachusetts fell in FY 2013.<sup>86</sup> However, Hallmark's financial position remains positive, with continuing increases in cash and equivalents and total net assets in FY 2013.<sup>87</sup>

The parties state that Hallmark cannot make sufficient capital investments on its own, and "has concluded that without the Transaction it would be forced to make significant reductions in the locations and types of services that it provides. . . . These reductions would likely include closure of the LMH campus entirely and the termination of all of its services."<sup>88</sup> As noted in the Final Report, Hallmark's average age of plant indicates the need for capital investment; however, based on the HPC's examination of Hallmark's financial position, planning documents provided by the parties, and the parties' estimates of Hallmark's independent capital needs, we find the above described position is not well-supported.<sup>89</sup>

### **III. Conclusion.**

Having reviewed and considered each of the points raised in the parties' Written Response, and in light of the findings in our Final Report, we find that further review of the transaction is warranted. Accordingly, the Final Report includes a referral of the transaction to the Attorney General for further review.

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<sup>84</sup> Although the parties reference Hallmark's FY14 performance to date, audited financial information was unavailable for this period, and the unaudited information provided by the parties was limited. We were therefore unable to reliably assess Hallmark's performance in this recent period, but note that the limited unaudited information the parties provided for FY14 did not alter our assessment of Hallmark's financial position.

<sup>85</sup> The parties state that although Hallmark's financial statements classify investment income under operating revenues, the HPC should not have included this income as operating revenues in calculating Hallmark's operating margin. The HPC seeks to present financial analyses that allow the reader to make an "apples to apples" comparison of provider financial performance. Wherever possible, this presentation reflects the financial categorizations and judgments adopted by the providers and their auditors, whom the HPC relies on to be familiar with the businesses presented and to exercise sound judgment in categorizing financial data. In light of Hallmark's preference to re-categorize its investment income, the Final Report now similarly reflects investment income as non-operating revenue, resulting in Hallmark having more modest operating margins of 2.7% in FY11 and 2.4% in FY12, and a negative margin of -1% in FY13. FINAL REPORT, *supra* note 5, at 19-21.

<sup>86</sup> See CTR. FOR HEALTH INFO. & ANALYSIS, MASS. ACUTE HOSP. FINANCIAL PERFORMANCE FISCAL YEAR 2013, 2 (May. 2014), available at <http://www.mass.gov/chia/docs/r/qtr/2013-09-30/2014-04-29/fy13-hospital-financial-report.pdf> (showing a decline in median operating margins for all categories of hospitals in FY13 except for AMCs).

<sup>87</sup> This characterization is consistent with that used by Standard & Poor's in the credit rating statement relied upon by the parties in their Written Response. See Martin Arrick, *Summary: Hallmark Health System, Massachusetts; Hospital*, STANDARD & POOR'S RATINGS SERVS. (July 17, 2014).

<sup>88</sup> Written Response, *supra* note 19, at 9.

<sup>89</sup> The parties' position that Hallmark requires \$400 million in capital improvements is nearly double the largest estimate provided by the parties of the cost of renovating Hallmark's two campuses. The parties' comparison of Hallmark's cash reserves to the cost of needed investments (*id.* at 8) is misleading, as it is typical for hospitals to fund significant capital investments through some amount of borrowing, rather than based solely on reserves.

# EXHIBIT C:

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EXPERT STATEMENTS BY ANALYSIS GROUP,  
FREEDMAN HEALTHCARE, GORMAN ACTUARIAL, AND  
HEALTH STRATEGIES & SOLUTIONS

**Health Policy Commission Review of Partners Healthcare System's  
Proposed Acquisitions of Hallmark Health Corporation (HPC-CMIR-2013-4)  
Expert Statement**

Tasneem Chipty

My name is Tasneem Chipty. I am a Managing Principal of Analysis Group, Inc., an economic and business consulting firm headquartered in Boston, Massachusetts. I specialize in the fields of antitrust economics and econometrics. The first of these is the study of how markets function, including competitive interactions among firms and consumer demand, and the second is the application of statistical methods to economic problems. I have served on the faculties of The Ohio State University, Brandeis University, and the Massachusetts Institute of Technology, where I taught courses in microeconomics, industrial organization, antitrust and regulation policy, and econometrics. I am the author or coauthor of several academic articles studying the effects of horizontal and vertical integration on competition, negotiated prices, and consumer welfare. These articles, which apply statistical methods to economic problems, have been published in leading peer-reviewed journals including the *American Economic Review* and the *Review of Economics and Statistics*. I received my Ph.D. in Economics from the Massachusetts Institute of Technology in 1993 and my B.A. degree in Economics and Mathematics from Wellesley College in 1989.

In my consulting work, I have studied the competitive effects of nearly two dozen proposed or consummated mergers and acquisitions, including several health care transactions. As part of my work, I regularly employ tools of market definition, critical loss, and upward pricing pressure to assess unilateral competitive effects. Specifically, I have studied the likely effects of proposed transactions on changes in both horizontal and vertical competitive behavior, including changes in referral patterns, steering, and vertical foreclosure. I have also studied the likely effects of proposed transactions on prices in relevant markets. My analysis of these issues is grounded in the U.S. Department of Justice and Federal Trade Commission's joint *Horizontal Merger Guidelines*. For example, on behalf of the Department of Justice, I have evaluated the competitive effects of Southwest Airline's proposed acquisition of Airtran and the competitive effects of the proposed consolidation of two local daily newspapers in Charleston, West Virginia. Both of these matters involved an assessment of relevant antitrust markets where the impact of the proposed transaction would likely be felt. In addition, I have served as a consultant to Northshore University HealthSystem (formerly Evanston Northwestern Health Corporation) in response to the Federal Trade Commission's post-merger investigation of the 2000 merger of Evanston Hospital and Highland Park Hospital in the Chicago area. I served as a consultant to Steward Health Care in assessing the competitive impact of its proposed acquisition of Morton Hospital in Massachusetts. More recently, I served as a consultant to private plaintiff Saint Alphonsus Medical Center in evaluating the likely competitive effect of St. Luke's Health System's acquisition of Saltzer Medical Group in the Boise, Idaho area.

I am retained by the Massachusetts Health Policy Commission as part of its Cost and Market Impact Review (CMIR) process to provide an initial assessment of the likely competitive effects of Partners HealthCare System's proposed acquisition of Hallmark Health Corporation. Specifically, I was asked to study the competitive effects, if any, of the proposed transaction stemming from the consolidation of general acute care inpatient hospital services. I was also asked to assess the parties' claims that the proposed acquisition would enable them to keep care in the local community and in so doing generate substantial cost

savings for inpatient hospitalization care. It is my understanding that this analysis is not intended to substitute for a full antitrust review. Rather, it is intended to provide framing of the relevant issues to guide a recommendation for (or against) further review.

In this statement, I provide an overview of my analysis, which is described more fully in the HPC's reports.<sup>1</sup> I also comment on the parties' response to the HPC's Preliminary Report.<sup>2</sup>

### **Preliminary Competitive Effects Analysis**

In a typical antitrust analysis, one often begins by assessing the nature of the product sold and geographies served by the merging parties for the purpose of evaluating whether certain consumers are likely to be adversely affected by the proposed transaction. One can also undertake a more formal analysis aimed at specifically identifying one or more relevant markets in which the effects of the proposed transaction are likely to be felt. A finding of harm to even a subset of consumers, or harm to competition in even one relevant market, can be enough to raise serious concern about the competitive impact of the proposed transaction. A relevant market includes the narrowest set of products (or hospitals) and the narrowest geography in which a hypothetical monopolist over those hospitals could sustain a small but significant and non-transitory increase in price, or a "SSNIP." In this context, the willingness of consumers to switch to another hospital can provide pricing discipline, and therefore the most likely candidates to discipline a particular hospital are that hospital's close substitutes.

To this end, my analysis focuses on the likely impact of the proposed transaction on consumers living in Hallmark's hospital Primary Service Area (PSA), using information on patient-based market shares. That is, I study which hospitals the patients in Hallmark's hospital PSA choose for a cluster of general acute care inpatient hospital services. Underlying these choices are patient preferences for hospitals based on geographic location, reputation, and medical need. As an initial screen, I perform a market share and concentration analysis that involves the calculation of the change in concentration resulting from the combination of Partners HealthCare System and Hallmark. This analysis indicates that Partners and Hallmark, respectively, have the largest (32.3%) and third largest (15.2%) shares of commercial discharges in Hallmark's hospital PSA. Combined, they capture approximately 48% of the commercial discharges in the PSA. The market share, concentration, and diversion analyses together show that Hallmark and Partners directly compete with one another in the Hallmark PSA. The analysis indicates that the two are close competitors there and that, although Lahey Health and Beth Israel Deaconess Care Organization (BIDCO) have a substantial competitive presence, the proposed transaction would solidify the parties' position as the clear market leader in this geographic area. The analysis also indicates that with full financial integration, Hallmark's PSA would be highly

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<sup>1</sup> MASS. HEALTH POLICY COMM'N, REVIEW OF PARTNERS HEALTHCARE SYSTEM'S PROPOSED ACQUISITION OF HALLMARK HEALTH CORPORATION (HPC-CMIR-2013-4), PURSUANT TO M.G.L. C. 6D, § 13, PRELIMINARY REPORT; MASS. HEALTH POLICY COMM'N, REVIEW OF PARTNERS HEALTHCARE SYSTEM'S PROPOSED ACQUISITION OF HALLMARK HEALTH CORPORATION (HPC-CMIR-2013-4), PURSUANT TO M.G.L. C. 6D, § 13, FINAL REPORT [hereinafter FINAL REPORT].

<sup>2</sup> Partners HealthCare and Hallmark Health's Response to the Health Policy Commission's Preliminary CMIR Report dated July 2, 2014 (Aug. 1, 2014) [hereinafter Written Response]. In this statement, I comment only on major themes of the Written Response, as they apply to analyses I have undertaken. I have not attempted to rebut all of their opinions or asserted facts. Any silence with respect to a particular opinion or asserted fact should not be interpreted as agreement.

concentrated, and that to the extent the parties are not already behaving as if they were fully integrated through their joint contracting, the transaction would result in a large increase in concentration.<sup>3</sup>

The parties attempt to discredit the HPC's market concentration and pricing power analysis by saying that "[t]he methodologies utilized by the HPC... are rejected by all relevant antitrust precedents and guidelines"<sup>4</sup> and that "shorthand reliance on PSAs as a proxy for an appropriately defined relevant geographic market has been long recognized as a fundamental analytical error in antitrust cases."<sup>5</sup> I disagree with the parties' characterization for the following reasons:

1. The HPC's analyses are consistent with the Federal Trade Commission and Department of Justice guidelines for antitrust enforcement of Accountable Care Organizations. According to these guidelines, "[a]lthough a PSA does not necessarily constitute a relevant antitrust geographic market, it nonetheless serves as a useful screen for evaluating potential competitive effects."<sup>6</sup>
2. CMIRs are intended to be a screening tool to determine whether a transaction warrants further review.
3. Antitrust authorities do not always rely on full blown, formal market definition to assess likely competitive effects. For example, the Federal Trade Commission and Department of Justice *Merger Guidelines* explain, in the context of differentiated products:<sup>7</sup>

"The extent of direct competition between the products sold by the merging parties is central to the evaluation of unilateral price effects. . . . The Agencies consider any reasonably available and reliable information to evaluate the extent of direct competition between the products sold by the merging firms. This includes documentary and testimonial evidence, win/loss reports and evidence from discount approval processes, customer switching patterns, and customer surveys."

Thus, while the HPC does not adopt a full-blown market definition analysis, it relies on an acceptable approach to provide an initial assessment of the extent to which the proposed transaction will harm competition.

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<sup>3</sup> Currently, Partners acts as Hallmark's agent in payer contract negotiations. However, there is a large economics literature that explains that the incentives of principals (Hallmark) and agents (Partners) may not be fully aligned and as such, in a rich variety of circumstances, the principal-agent relationship will not replicate a fully integrated outcome. Thus, after Partners owns Hallmark, one would expect that their incentives would be fully aligned. See, e.g., David E.M. Sappington, *Incentives in Principal-Agent Relationships*, 5 J. ECON. PERSPECTIVES, 45 (1991), available at <http://www.isr.umd.edu/~hyongla/TMP/PAPERS/IncentivesPrincipalAgentRelationship.pdf>.

<sup>4</sup> Written Response, *supra* note 2, at 11.

<sup>5</sup> *Id.*

<sup>6</sup> Statement of Antitrust Enforcement Policy Regarding Accountable Care Organizations (ACO), 76 FED. REG. 67026, 67028 (Oct. 28, 2011), available at <http://www.gpo.gov/fdsys/pkg/FR-2011-10-28/pdf/2011-27944.pdf>.

<sup>7</sup> See U.S. DEPT. OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES 20 (2010) available at <http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf>.

The parties mischaracterize the HPC's analysis, saying that it "ignores patient choices" and that "it ignores the reality that patients regularly travel outside of the alleged 'market' to receive care at other hospitals."<sup>8</sup> This characterization is simply untrue. The HPC presents a market share analysis from the perspective of patient locations and, as such, includes in its calculations patients' choice of hospital regardless of hospital location.<sup>9</sup> In so doing, the HPC's methodology recognizes the very fact that patients travel outside of the PSA, and it reflects the competitive significance of hospitals located outside of the PSA.

Based on my review, it remains my opinion that the Hallmark's hospital PSA encompasses a highly relevant set of consumers – those for whom the Hallmark hospitals are a viable choice for acute inpatient care. An analysis of where they receive their care identifies the closest competitor hospitals to Hallmark from the perspective of these consumers. This analysis shows that Partners HealthCare System and Hallmark are the first and third choices, respectively, for both non-tertiary and tertiary inpatient care for residents in Hallmark's hospital PSA. This evidence by itself indicates the presence of substantial head-to-head competition between the parties, making it more difficult for either to independently raise prices to insurers serving this set of Massachusetts residents. Partners' acquisition of Hallmark would eliminate this competition, with a corresponding potential for the parties to increase prices.

### **Evidence Regarding the Impact of Hospital Mergers in Concentrated Markets**

As explained in the HPC's Final Report, the change in concentration associated with a transaction is probative of the likely impact of the transaction on market power and the ability of the parties to negotiate higher prices.<sup>10</sup> The parties criticize the HPC saying that it mischaracterizes the empirical support for the principle that increased concentration is correlated with higher prices by relying on a single study from 2006.<sup>11</sup> There are several problems with the parties' criticisms.

First, as a threshold matter, there are fundamental economic principles underlying the widely-accepted view that in a broad set of circumstances, across a rich variety of industries, increased concentration results in higher prices. Indeed, the concentration thresholds and safe harbors in merger enforcement policy, which are used to provide guidance for all mergers (including hospital mergers), are predicated on this view. The HPC did not invent this concept.

Second, the HPC does not rely on a single study, as the parties claim. Instead, the HPC references multiple econometric studies, and cites a 2006 review paper by Town and Vogt that itself covers 13 separate empirical studies. The HPC also cites a 2004 study by the Federal Trade Commission and Department of Justice on competition in health care that

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<sup>8</sup> Written Response, *supra* note 2, at 11-12.

<sup>9</sup> This approach is consistent with the HORIZONTAL MERGER GUIDELINES which recognizes explicitly that, instead of supplier-based shares, it may be appropriate for the Agency to "define geographic markets based on the location of targeted customers." *Supra* note 7, at § 4.2.2.

<sup>10</sup> FINAL REPORT, *supra* note 1, at 48.

<sup>11</sup> Written Response, *supra* note 2, at 14-15.

explains that “[m]ost studies of the relationship between competition and hospital prices have found that high hospital concentration is associated with increased prices.”<sup>12</sup>

The parties point to a more recent study by Moriya et al. (including Vogt)<sup>13</sup> to support their general proposition that there is no correlation between concentration and prices.<sup>14</sup> However, the authors of this study state clearly that their price data are from fewer than 100 of the largest employers and that their price sample is “not representative of the US insured population.”<sup>15</sup> Further, the parties describe a more recent study by Gaynor and Town (2012) as showing “no consistent quantified relationship between changes in market concentration and observed hospital price increases.”<sup>16</sup> However, upon examination of Gaynor and Town (2012), it is apparent that the parties’ assessment is at odds with that of the authors, who conclude:

“Increases in hospital market concentration lead to increase in price of hospital care. This finding is consistent with the conclusion of the 2006 synthesis [referring to the Town and Vogt (2006) article cited by the HPC].”<sup>17</sup>

More recent studies of hospital mergers in other markets suggest strong price effects from hospital mergers in already concentrated markets. For example, Haas-Wilson and Garmon (2011) review the price effects of the 2000 mergers of Evanston-Highland and Vista Health. They find that in the case of Evanston-Highland (but not Vista Health) “large and statistically significant relative post-merger price increases for all but one of the commercial insurers.”<sup>18</sup> Dafny (2009) studies hospital mergers over the period 1989-1996 and concludes that hospitals increased prices by approximately 40 percent following mergers of hospitals located nearby.<sup>19</sup>

Furthermore, I note that my synthesis of the existing literature is consistent with the remarks of Professor Gaynor, who explained in his testimony before a House Ways and Means Committee, with reference to this body of literature:

“Overall, these studies consistently show that hospital consolidation raises prices, and by nontrivial amounts. Consolidated hospitals that are able to charge higher prices due to

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<sup>12</sup> U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, IMPROVING HEALTHCARE: A DOSE OF COMPETITION 1, 15 (2004), available at <http://www.ftc.gov/reports/healthcare/040723healthcare rpt.pdf>.

<sup>13</sup> Asako S. Moriya, William B. Vogt & Martin Gaynor, *Hospital prices and market structure in the hospital and insurance industries*, 5 HEALTH ECON. POLICY & L. 459 (2010).

<sup>14</sup> Written Response, *supra* note 2, at 15 (“the authors found no statistically significant relationship between changes in concentration and price using a large sample of commercial claims data across a broad range of geographies”).

<sup>15</sup> Moriya, Vogt & Gaynor, *supra* note 13, at 466 and 476.

<sup>16</sup> Written Response, *supra* note 2, at note 27.

<sup>17</sup> MARTIN GAYNOR & ROBERT TOWN, ROBERT WOOD

JOHNSON FOUND., THE IMPACT OF HOSPITAL CONSOLIDATION – UPDATE, (2012), available at [http://www.rwjf.org/content/dam/farm/reports/issue\\_briefs/2012/rwjf73261](http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2012/rwjf73261).

<sup>18</sup> Deborah Haas-Wilson & Christopher Garmon, *Hospital Mergers and Competitive Effects: Two Retrospective Analyses*, 18 INT’L J. ECON. BUS. 17, 18 (2001).

<sup>19</sup> Leemore Dafny, *Estimation and Identification of Merger Effects: An Application to Hospital Mergers*, 52 J. L. & ECON., 523 (2009).

enhanced market power are able to do so on an ongoing basis, making this a permanent rather than a transitory problem.”<sup>20</sup>

Based upon my review, it remains my opinion that there is broad support in the literature for the HPC’s view that the change in concentration associated with the transaction is probative, at least as an initial screen, of the likely impact of the transaction on market power and the ability of the parties to negotiate higher prices.

### **Component Contracting**

I understand that the proposed settlement between the Attorney General’s Office (AGO) and Partners provides payers the option to “contract with Partners Network providers on a component basis,”<sup>21</sup> including “elect[ing] to contract with HHS and the HHPHO physicians separately from all other Partners providers.”<sup>22</sup> The parties suggest that if faced with price increases for HHS and HHPHO physicians, a payer would “still be able to contract with the other components of the Partners Network, including the Partners AMCs” without risking “discriminatory action” from Partners.<sup>23</sup> The parties conclude that “[u]nder the circumstances . . . it is difficult to imagine that Partners would have any success in negotiating the ‘supracompetitive’ rate increases for the Hallmark Health providers that the HPC asserts will occur as a result of the Transaction.”<sup>24</sup>

While component contracting, in theory, allows payers to avoid all-or-nothing contracting with Partners, it does not enable the level of competitive pressure that payers would have been able to exert on Partners had the parties remained separate competitors. At present, each hospital system would lose business to the other in the event it does not meet a payer’s demands in negotiations. It is this possibility of losing business that drives prices down in competitive situations. Once merged – even with component contracting – the Partners system would be able to recapture lost business to the extent that business would be lost to Hallmark. This ability to recapture lost business softens price competition and creates upward pressure on prices.<sup>25</sup> A similar point is made by a group of academic economists in their comments on the AGO’s proposed settlement.<sup>26</sup> Specifically, these authors explain that the ability to keep “revenues ‘in the family’ . . . blunts any disincentive to raise price.”<sup>27</sup> They

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<sup>20</sup> *Hearing on Health Care Industry Consolidation Before the SubComm. on Health of the H. Comm. on Ways and Means*, 112th Cong. (2011) (statement of Martin Gaynor).

<sup>21</sup> Joint Motion for Entry of Final Judgment by Consent, *In Re Comm. of Mass. v. Partners Health Sys., Inc., South Shore Health and Ed. Corp., and Hallmark Health Corp.*, Civil Action No. 14-2033-BLS (Mass. Superior Ct. June 24, 2014), available at <http://www.mass.gov/ago/docs/press/2014/partners-settlement-062414.pdf>.

<sup>22</sup> Written Response, *supra* note 2, at 9.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at 10.

<sup>25</sup> The idea that the ability to recapture lost sales creates an opportunity to raise prices is well established. For example, Farrell et al. explain about merging hospitals: “If the hospitals are substitutes and bargain separately post-merger, their disagreement payoffs (and, hence equilibrium prices) rise because each hospital now takes into account the fact that its merger partner will recapture some of its lost volume if it fails to reach an agreement.” See JOSEPH FARRELL ET AL., *FED. TRADE COMM’N, ECONOMICS AT THE FTC: HOSPITAL MERGERS, AUTHORIZED GENERIC DRUGS, AND CONSUMER CREDIT MARKETS* 6 (2011), available at [http://www.ftc.gov/sites/default/files/documents/reports/economics-ftc-hospital-mergers-authorized-generic-drugs-and-consumer-credit-markets/farrelletal\\_rio2011.pdf](http://www.ftc.gov/sites/default/files/documents/reports/economics-ftc-hospital-mergers-authorized-generic-drugs-and-consumer-credit-markets/farrelletal_rio2011.pdf).

<sup>26</sup> Comment of Academic Economists *In Re Comm. of Mass. v. Partners Health Sys., Inc., South Shore Health and Ed. Corp., and Hallmark Health Corp.* at 5 Civil Action No. 14-2033-BLS (Mass. Superior Ct. July 21, 2014), available at <http://www.mass.gov/ago/docs/partners/academic-economists.pdf>.

<sup>27</sup> *Id.* at 4.

go on to explain that “[t]his is true even in the absence of explicit price coordination among the co-owned former rivals.”<sup>28</sup>

Furthermore, the available evidence shows little to no success of separate bargaining requirements on merging parties as a remedy to mitigate bargaining leverage conferred by hospital mergers. For example, the academic economists describe such an experience in the wake of a similar remedy imposed by the court to address competitive concerns stemming from significant price increases following the merger of Evanston Hospital and Highland Park Hospital in the Chicago area. They explain, “[a]pparently no insurer has availed itself of this option, suggesting that payers recognize that the benefits of separate negotiation (which subsumes component contracting) are minimal.”<sup>29</sup> They go on to explain, “[t]o our knowledge, prices have not reverted back to competitive levels, despite the supposed return of competitive pricing incentives. The FTC has since distanced itself from this remedy.”<sup>30</sup> In addition, a recent study by Gowrisankaran et al. (2014) supports a similar conclusion.<sup>31</sup> These authors estimate a model of bargaining between hospital systems and payers using claims data from Northern Virginia. The estimates are used, among other things, to simulate a merger of Inova Health System and Prince William Hospital (PWH). In addition to finding large price increases were likely, they conclude that requiring separate negotiations between PWC and Inova would not adequately address the competitive concern.<sup>32</sup>

### **Analysis of Shifts in Utilization**

The parties assert without support that the transaction would result in redirection of 10 to 25 percent of inpatient Massachusetts General Hospital (MGH) volume that originates from Hallmark’s service area back to Hallmark. To evaluate this claim, I designed and implemented an econometric analysis to assess whether and from where Hallmark would likely draw patients if it were to function like the three other greater Boston-area Partners community hospitals, using MHDC discharge data from September 2011 through September 2012. As described in the HPC’s Final Report, the results of this analysis indicate that changes in Hallmark volume would be more complex than a one-way redirection of care from MGH to Hallmark.<sup>33</sup> The data show that Hallmark is likely to receive increased inpatient volume as a Partners hospital, but that this new volume is more likely to come from net volume reductions at lower-priced non-Partners hospitals than from any net change in volume at the Partners AMCs.<sup>34</sup>

The parties criticize this analysis in two ways. First, they say that “the underlying econometric modeling used by the HPC here is based on historical patient discharge data and prices.”<sup>35</sup> It is certainly true that the HPC’s analysis relies on historical data, but from a relatively recent year –2012 – the most recent year for which the MHDC data are available.

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<sup>28</sup> *Id.* at 5.

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> Gautam Gowrisankaran, Aviv Nevo, & Robert Town, *Mergers When Prices Are Negotiated: Evidence from the Hospital Industry*, AM. ECON. REV., (forthcoming 2014) (manuscript at 28), available at [http://www.u.arizona.edu/~gowrisan/pdf\\_papers/hospital\\_merger\\_negotiated\\_prices.pdf](http://www.u.arizona.edu/~gowrisan/pdf_papers/hospital_merger_negotiated_prices.pdf).

<sup>32</sup> *Id.*

<sup>33</sup> FINAL REPORT, *supra* note 1, at 55-57.

<sup>34</sup> *Id.*

<sup>35</sup> Written Response, *supra* note 2, at 26.

The information embodied in these data reflects current consumer choice and physician referral decisions that can provide highly relevant guidance to assess the parties' claims.

Second, they say “[i]t is pure speculation to use this untested model to hypothesize that there will actually be substantial shifts of patients from other hospitals to HHS.... This bears no relationship to the reality of what other hospitals are doing and how they could respond.”<sup>36</sup> I disagree entirely with this characterization. As a general matter, econometric techniques have long been used by the antitrust research community and viewed as credible scientific methodology. Because the analysis uses actual data from a recent time period, the estimated behavior very likely reflects “the reality of what other hospitals are doing” right now and serves as a reasonable basis to predict “how they could respond.” Furthermore, the parties describe the HPC estimated shifts as being “substantial,” yet I estimate redirection of between 500 and 1,400 discharges<sup>37</sup> – a range that is comparable in magnitude to the parties’ own range of assumed redirected discharges. (However, the parties assume redirection to Hallmark would reflect net redirection of current MGH discharges, while my analysis suggests it is likely to come from a variety of non-Partners hospitals.)

Finally, I observe that the parties’ claim – that a significant number of discharges will be redirected from MGH to Hallmark but that there will be no redirection from other, lower-priced hospitals – is itself unsupported. The parties claim to have developed a “full slate of evidence-backed PHM programming and a methodology to estimate PHM savings that applies a bottoms-up approach on a program-by-program basis” and that “[u]sing this methodology” they developed their estimated cost savings.<sup>38</sup> Yet, they have not produced any methodology showing how they determined their redirection estimates. It is my understanding that notwithstanding the HPC’s requests for adequate documentation of Partners’ methodology, Partners has not provided such documentation. Based on my review, it remains my opinion that my econometric analysis is a credible basis to evaluate the parties’ claimed shifts in utilization.

September 3, 2014



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Tasneem Chipty, Ph.D.

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<sup>36</sup> *Id.*

<sup>37</sup> FINAL REPORT, *supra* note 1, at 56, note 210.

<sup>38</sup> Written Response, *supra* note 2, at 2.

**Health Policy Commission Review of Partners HealthCare System's  
Proposed Acquisition of Hallmark Health Corporation (HPC-CMIR-2013-4)  
Expert Statement**

John Freedman

My name is John Freedman, MD, MBA. I am the Founder and Principal of Freedman HealthCare, LLC (FHC), an independent health care consulting firm headquartered in Newton, Massachusetts. I am an internal medicine trained physician who specializes in care delivery reform and large scale health system transformation to create a more efficient health care system. I have served as the Medical Director for Quality at Kaiser Permanente in Colorado, and Medical Director for Specialty Services at the East Boston Neighborhood Health Center, overseeing 40 physicians in 16 specialties. As Assistant Vice President and Medical Director for Medical and Quality Management at Tufts Health Plan, I led one of the first public physician profiling efforts in the country—also one of the earliest episode-based physician profiling projects—and I helped define the plan's pay for performance program by engaging physician leaders from medical groups as well as the state medical association. I have additionally served as Associate Medical Director and faculty member of the Tufts Health Care Institute, as a lecturer at the Harvard School of Public Health, and as faculty at Boston University and Tufts Medical Schools. I am the author or coauthor of multiple reports and articles studying clinical quality improvement, utilization management, and the effects of the insurance market on promoting value. I received my M.D. from the University of Pennsylvania in 1988 and completed my internship and residency in Internal Medicine at Boston University Medical Center in 1991; I received my MBA from the University of Louisville in 1993 and my A.B. in Biology from Harvard College in 1984.

In my consulting work, I have combined my ten years of clinical practice with expertise in performance improvement to help clients solve complex business, strategy, and implementation challenges. My expert team includes seasoned health data experts and health policy advisors who pioneered programs in Massachusetts and now bring their expertise across the country. I routinely employ tools and principles of quality measurement, quality improvement, business strategy, and utilization optimization to support providers and payers in care delivery reforms. For example, I have contributed to extensive market examinations in Massachusetts, including studies of the correlation of quality with price. I have served as the lead consultant to the Massachusetts Statewide Quality Advisory Committee in the development of a Standard Quality Measure Set. On behalf of the Massachusetts Office of the Attorney General – Health Care Division, I led analyses of health care quality in Massachusetts, including examination of key payer-led performance incentive plans as well as the measures and approaches employed by a broad array of providers. In addition, I currently serve as a consultant to the Group Insurance Commission, where I advise and facilitate efforts of the GIC and its six carriers to implement the aggressive cost saving and quality improvement goals of the Integrated Risk Bearing Organization initiative.

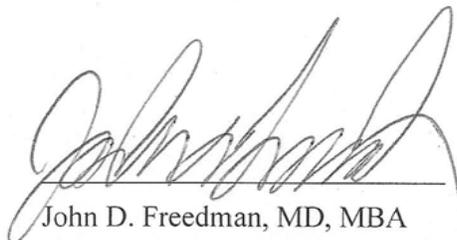
I am retained by Massachusetts Health Policy Commission to provide an assessment of the likely care delivery and quality impacts of Partners HealthCare System's Proposed Acquisition of Hallmark Health Corporation (collectively, the "parties"). It is my understanding that this analysis is intended to provide an understanding of the parties' baseline performance and a directional assessment of the impacts of the transaction on the parties' post-transaction abilities to meet the goals of the Commonwealth in reducing health care cost growth while improving quality and access.

My team's analysis of the transaction focused on evaluation of three domains: 1) baseline performance of the parties on widely accepted quality measures; 2) the potential for quality improvement as a result of the proposed transaction; and 3) the projected impacts of proposed care delivery reforms. Our analysis of more than 100 quality measures suggests that both Partners and Hallmark are high quality health systems, but that on average Partners performs better than Hallmark across a wide range of measures. Based on this difference, and on the parties' general plans to share best practices, establish joint clinical management in certain service lines, and initiate a series of care delivery reforms, we believe that this transaction has the potential to result in quality improvement at Hallmark. However, this potential is tempered by our observation that existing clinical and contracting affiliations between Partners and Hallmark have not already resulted in Hallmark having quality performance more similar to Partners providers. It is also difficult to judge whether potential for improvement will be realized due to the lack of information regarding the parties' plans for implementing their care delivery initiatives.

In our review of the parties' population health management (PHM) plans and their estimates of care delivery savings provided for the HPC's Preliminary CMIR Report, we reviewed the parties' descriptions of their proposed programs and their framework for estimating cost savings which would result from reduced inpatient admissions. We found that the parties' estimates of the population their interventions would serve and the potential reductions in utilization were inadequately substantiated, that key details of implementation for specific programs were absent, and that the parties' assessment of the cost of implementing and maintaining these programs was based on questionable assumptions. When we adjusted the parties' assumptions to reflect the best available data, we estimated a potential for gross annual savings of up to \$5.4 million, no more than half of the parties' estimate.

The response of the parties to the Preliminary CMIR Report provided a new estimate of savings from the PHM programs and information on additional programs they plan to deploy. The new estimate of \$20.1 million in annual savings is twice as large as the initial estimate, and includes potential savings from reductions in unnecessary care in all settings. This new estimate lacks key supporting information, including intervention-specific estimates of patient population, per-member savings, and program costs. While the parties provided additional descriptions of their proposed programs, this information is too broad to enable assessment of the extent to which the parties' programs will be similar to those cited by the parties in Appendix C of their response. The references cited by the parties mostly address high-level or theoretical savings from programs that are not necessarily similar to the ones proposed. I do not believe that the new estimate provided by the parties can be validated with the information available, or that the parties have shown how their proposed programs are likely to produce savings substantial enough to mitigate cost increases from other aspects of the transaction.

September 1, 2014



John D. Freedman, MD, MBA

**Health Policy Commission Review of Partners Healthcare System's  
Proposed Acquisition of Hallmark Health Corporation (HPC-CMIR-2013-4)  
Expert Statement**

Bela Gorman

**I. Introduction**

My name is Bela Gorman. I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries and, since 2005, have been president of Gorman Actuarial, Inc. I have over 20 years of actuarial experience in health care. My primary focus over the past nine years has been assisting state governments with analyzing the impact of health reform policies, including efforts at cost containment, on the insured markets. I also specialize in reviewing insurance carrier premium rates on behalf of state Insurance Departments and assisting various insurance carriers with pricing and financial forecasting. In addition to Massachusetts, my state clients have included New Hampshire, New York, Maine, Rhode Island, Nevada, Wyoming, and Wisconsin. My insurance carrier clients range from large national carriers such as Humana to smaller carriers such as Geisinger Health Plan. From 1999-2004, I served as the Director of Actuarial Services at Harvard Pilgrim Health Care, responsible for pricing and forecasting, and prior to that held other actuarial and underwriting positions with other insurance carriers in the state.

The other actuary on the Gorman Actuarial team is Jennifer Smagula. Jennifer is a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. Jennifer has 15 years of actuarial experience. Over the past four years, Jennifer's focus has been in modeling and analyzing the impacts of health care reform policies and assisting states with rate review as part of the Gorman Actuarial team. Prior to this, Jennifer was a director level actuary at Blue Cross and Blue Shield of Massachusetts, focusing on pharmacy analysis and trend management. Jennifer has also worked for Harvard Pilgrim Health Care focusing on pricing and rate development for various market segments.

We have extensive experience with the Massachusetts market. In addition to having worked at the largest insurers in the state, we also provide actuarial and analytic expertise to several state agencies including the Massachusetts Attorney General's Office (AGO), the Massachusetts Division of Insurance (DOI), the Massachusetts Health Connector, and the Massachusetts Health Policy Commission (HPC). We were directly involved in developing the analytic framework for the state's public reporting of total medical expenditure (TME) and relative price (RP). TME and RP are now commonly used provider financial metrics that are instrumental in our work and analyses for the HPC. We have supported and continue to support the AGO's work on examining health care cost trends and cost drivers, and also support the DOI on health insurer premiums. This requires us to work with the major insurance carriers in the state, providing us with insight into each carrier's approach to data as well as their data limitations. This knowledge is critical when the state's agencies rely so heavily on insurance carrier data to perform financial analyses and modeling.

## **II. Scope of Work**

Gorman Actuarial has been retained by the HPC to analyze the impact of Partners HealthCare System's proposed acquisition of Hallmark Health Corporation on TME. Projecting TME due to known or expected changes in the market is a common actuarial practice. Health insurance actuaries need to project TME in order to develop health insurer premiums that will be both adequate and not excessive. Actuaries use historical data to understand the impact of future market changes such as a provider transaction. In addition to reviewing historical data, actuaries also review known, expected changes in the market. By analyzing both historical data and expected future changes, actuaries can develop models that will adjust history to project the future.

## **III. Findings**

Through this transaction we identified several expected changes that would impact TME. The principal areas that we analyzed for the HPC include the projected impact on TME due to: (1) increased physician and hospital prices; (2) shifts in inpatient and outpatient referral patterns between non-Partners hospitals, Hallmark, and Partners' hospitals; and (3) recruitment of 25 new PCPs to the new Partners-Hallmark system, with resulting changes in the site of care for patients cared for by these physicians.

### **(1) Increased Physician and Hospital Rates (“unit price”)**

In examining potential physician and hospital rate (“unit price”) increases, we reviewed current revenue data for the Hallmark and Partners physicians and hospitals, CHIA relative price data, Partners' payer contracts, and the parties' proposed settlement agreement. We also participated in HPC discussions with payers to develop a deeper understanding of their contracts with Partners. We considered Partners' current contract terms with the three major commercial payers, the payers' views on future contract terms in light of Partners' current practices, and the parties' stated goals for the transaction. We identified the physician and hospital rates that Hallmark would receive if Partners treated Hallmark consistently with its other integrated providers following renegotiation of contracts. Based on these analyses, we projected, over time, a \$16.1 million annual increase in spending for the three major payers due to physician and hospital rate increases, which would directly translate into increased premiums for consumers in northeastern Massachusetts.

We also analyzed the parties' proposed settlement agreement using recent revenue for Hallmark and Partners' community hospitals and physicians. Given the scope of this revenue from payers monitored under the proposed settlement agreement, we found that notwithstanding the agreement's constraints on average price increases across Partners' community network, it appears Partners would retain the flexibility to allocate rate increases to Hallmark providers equal to the \$16.1 million we modeled.

## **(2) Referral Pattern (“provider mix”) Impact**

In examining the cost impact of anticipated changes in inpatient and outpatient referral patterns, we reviewed data from the major payers showing site of care for patients of Hallmark and Partners PCPs and relative price data. We also worked with HPC-engaged economic experts to estimate the impact on TME of projected changes in inpatient site of care. We found that, at Hallmark’s current prices, projected changes in inpatient site of care are likely to be net cost neutral. If, however, Hallmark’s prices were to increase to those of Partners’ owned community hospitals in the greater Boston area, we found that projected changes in inpatient site of care would be anticipated to increase spending for the three major payers by approximately \$4 million per year. We also examined the parties’ projected redirection back to Hallmark of 10% to 25% of patients in Hallmark’s service area who currently receive inpatient care at MGH. We believe this transaction directly ties to the patients who are currently under the care of Hallmark providers, who are thus a more reasonable population for which to assess redirection. As such, we analyzed redirection of care for these patients. Assuming the parties achieved the full scope of their redirection targets for this more reasonable population, and that the transaction would not result in any other changes in inpatient site of care except a one-way redirection from MGH to Hallmark, we modeled potential savings for the three major payers of approximately \$280K to \$700K.

When we examined referral patterns of current Hallmark physicians for outpatient care, we found that these physicians are already directing their patients to their local community hospital, the Hallmark hospitals, more frequently than Partners physicians affiliated with Newton-Wellesley Hospital and North Shore Medical Center keep their patients at NWH and NSMC (the two Partners community hospitals most similarly situated to Hallmark). We also found that Hallmark physicians refer their patients to Partners’ AMCs in lieu of their local community hospital no more frequently than Newton-Wellesley and North Shore Medical Center physicians refer their patients to Partners’ AMCs. From this, we found it questionable that this transaction would result in a substantial shift in care from the Partners AMCs to Hallmark, as the parties claim. Nonetheless, we modeled the parties’ projected redirection back to Hallmark of 25% to 50% of patients in Hallmark’s service area who currently receive outpatient care at MGH. Again, we applied the more reasonable premise that management of patients under the care of Hallmark providers represent the population reasonably tied to this transaction. Assuming the parties achieved the full scope of their redirection targets for this more reasonable population, and that the transaction would not result in any other changes in outpatient site of care except a one-way redirection from MGH to Hallmark, we modeled potential savings for the three major payers of approximately \$870K to \$1.8 million.

## **(3) Referral Pattern (“provider mix”) Impact for 25 New Physicians**

We also examined the cost impact of the parties’ recruitment of 25 new physicians. We estimated the cost of care for patients that fill the panels of these new physicians will increase by \$1.3 million per year if these newly recruited physicians begin to direct these patients to the same mix of facilities that current Hallmark physicians use. If the newly recruited physicians begin to direct patients to the same mix of facilities that other Partners community physicians

use, the cost of these patients' care would increase by \$3.8 million per year for the three major payers.

#### **IV. Party Responses**

I have reviewed the Partners-Hallmark written response and believe our analyses in the above areas are not impacted by the new information the parties have provided. Regarding increases in physician and hospital prices, consistent with our discussions with payers, Partners' existing practices for its owned community hospitals and physician groups, and the parties' stated plans to convert Hallmark into an "integrated" provider, we modeled the cost impact over time of a range of Hallmark providers receiving integrated rates upon contract renegotiation. Regarding referral pattern impact, we agree with the parties that there may be opportunities for savings among government payer patients if there were a net redirection of care from MGH to Hallmark. However, the parties have not provided any information for us to project this figure and, based on our review of payer site of care data and our work with HPC-engaged economic experts regarding projected changes in site of care, we continue to find that significant net redirection of care from MGH to Hallmark is unlikely.

September 2, 2014



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Bela Gorman, FSA, MAAA

**Health Policy Commission Review of Partners HealthCare System's  
Proposed Acquisition of Hallmark Health Corporation (HPC-CMIR-2013-4)  
Expert Statement**

Robert Hill

**I. Introduction**

My name is Robert Hill. I am a Principal with Health Strategies & Solutions, Inc. (HS&S), a health care management consulting firm headquartered in Philadelphia, PA. I direct our firm's financial planning and compliance practice and manage engagements related to strategic and affiliation planning. I have approximately 20 years of health care management consulting experience. I have conducted strategy formulation, affiliation/partnership evaluation, financial forecasting and feasibility studies, market analysis, and implementation planning engagements for a wide range of health care providers and for state regulatory organizations.

I authored a chapter on the financial benefits of mergers and affiliations in *Leading Your Organization Through a Merger or Acquisition*, published by Health Administration Press, received the American College of Healthcare Executives Service Award for commitment and service to the health care management profession, and in 2010, I was awarded the title of Temple University Alumni Fellow for my distinguished professional contributions. In 2006, I received the Early Career Award from the American College of Healthcare Executives Southeastern Pennsylvania Regents in recognition of my efforts to advance health care management excellence. I am a fellow of the American College of Healthcare Executives, former president of the Healthcare Leadership Network of the Delaware Valley, and previously served on the advisory council for Temple University's Center for Healthcare Research and Management.

Prior to working as a management consultant, I was a financial analyst at the New Jersey Health Care Facilities Financing Authority and also worked in commercial banking. I have an M.B.A./M.S. in health care administration and finance from Temple University (1994) and a bachelor's degree in business economics and organizational behavior/management from Brown University (1988).

**II. Scope of Work**

HS&S has been retained by the HPC to analyze the financial performance and position of Partners HealthCare System (Partners), Hallmark Health Corporation (Hallmark), and comparator provider organizations in Massachusetts as part of the HPC's review of the proposed acquisition of Hallmark by Partners. This assessment is primarily based on information from the providers' audited financial statements. From these statements, we assess providers' recent performance on a variety of financial metrics, which reflect on providers' margins, liquidity, and solvency. Based on this performance, supplemented by our market knowledge and any additional information presented by the provider, we make an overall assessment of the provider's financial performance and position. In addition, as part of our review of this transaction, we assessed the scope of proposed investments in Hallmark's facilities, as well as

material pertaining to the potential for the merger between Partners and Hallmark to result in operating efficiencies.

### **III. Findings**

#### **(1) Financial performance and position of the parties**

In examining the financial performance and position of the parties, HS&S reviewed audited financial statements for Partners, Hallmark, and several providers identified by the HPC as comparator systems for fiscal years (FY) 2009 through 2012. We also reviewed audited financial statements for Hallmark for FY 2013, bond rating statements for Hallmark prepared by Standard & Poor's Financial Services, and planning documents created by the parties and their consultants. Based on this information, we consider Partners' financial position to be strong, reflecting significant increases in operating revenue, consistently positive operating margins, a strong and increasing liquidity position, and a substantial net asset position during the period examined. We consider Hallmark's financial position to be positive, reflecting a strong and improving liquidity position; growing net asset position; and ratios for debt-to-capitalization, capital expense, and equity financing which were all generally favorable to industry medians during the period examined. Hallmark's total margin and operating margin, although modest, consistently exceeded the Massachusetts median between FY 2009 and FY 2012; although Hallmark's operating revenue declined in FY 2013, it maintained substantial reserves, and its liquidity and net asset position continued to improve. Hallmark's high average age of plant indicates that capital investment is likely needed in its facilities, equipment, and/or infrastructure, which could be funded at least in part from Hallmark's substantial reserves or through borrowing.

#### **(2) Capital expenditures at Hallmark**

In examining the scope of expenditures the parties propose to make at Hallmark, HS&S reviewed capital spending for recent fiscal years as documented in Hallmark's audited financial statements, documents prepared for Hallmark by expert consultants for strategic planning purposes, and documents provided by the parties showing proposed investments under a variety of scenarios. From our review of this available information, we are unable to substantiate the need for the extent of the approximately \$590 million in capital investments proposed in connection with the transaction.

#### **(3) Operating efficiencies**

In examining the potential for the transaction to lower operating costs as a result of rationalizing services at Hallmark-LMH and NSMC-Union, HS&S reviewed documents provided by the parties which identified opportunities to reduce operating costs at each facility. While these materials were too general to substantiate the specific level of projected savings, and it is unclear whether the estimated savings account for the operating costs of the proposed improvements, it is reasonable to expect that certain efficiencies will result from rationalizing services.

#### (4) Administrative efficiencies

In examining the potential for the transaction to result in efficiencies from reductions in administrative costs, HS&S reviewed documents provided by the parties which identified opportunities to reduce administrative staffing and realize joint contracting and purchasing savings. The identified opportunity for approximately \$1 million to \$2 million in savings appears reasonable based on the information provided, although we could not make a specific estimate without more detailed information.

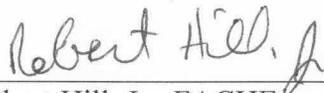
#### IV. Party Responses

I have reviewed the response of Partners and Hallmark to the HPC's preliminary report. Based on the information in the parties' response and the FY 2013 audited financial statements newly provided by Hallmark, HS&S has updated its analysis of Hallmark's financial performance and position to reflect the recent decline in Hallmark's net patient service revenue. This recent decline in revenue may in part reflect market changes, as operating margins for most hospitals in Massachusetts fell in FY 2013 according to data from the Center for Health Information and Analysis (CHIA). Despite this recent downturn in operating revenue, Hallmark's overall financial position remains positive. In particular, Hallmark's reserve of cash, equivalents, and investments continued to grow in FY 2013, and its days cash on hand ratio is significantly higher than the Massachusetts median. Based on available information, we do not agree with the parties' position that Hallmark does not have the wherewithal to continue operations as a standalone system.

Regarding the calculation of Hallmark's operating margin, it is HS&S's general policy to refrain from overriding the categorizations and judgments made by providers and their auditors when categorizing revenues and other line items. It is unclear why Hallmark would categorize investment income as operating revenue in its financial statements if Hallmark does not consider this income to be operating revenue. However, in light of new information from the parties in their written response, we have recalculated Hallmark's operating margin to exclude this investment income from Hallmark's operating revenue.

Regarding the scope of needed investments at Hallmark, the parties' assertion that modernizing Hallmark's facilities and technology would surpass all of Hallmark's cash reserves is misleading; it would be unusual for a provider to make large-scale capital investments without borrowing money to do so. Furthermore, HS&S has not reviewed any planning documents suggesting that Hallmark's facilities require \$400 million of investment.

September 2, 2014



Robert Hill, Jr., FACHE