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.[1] 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.

[1] 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.[2] 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*;[3]

- 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;[4] 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

[2] 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.

[3] 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.

[4] 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[5] 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.[6] 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

[5] HHS conversion to Epic (eCare) as a part of Partners will cost approximately $55M vs. $100M as an independent facility.

[6] 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.[7] 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.[8]

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."[9] 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,[10] HHS's average age of plant is higher than other area community hospitals in Massachusetts. In fact, HHS has estimated

[7] Preliminary Report, page 19.
[8] From HHS Decision Support Data.
[9] Preliminary Report, p. 18.
[10] Ibid., p. 19.

that its facility capital needs alone exceed $400 million.[11] 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.[12]

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.[13] 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").[14] 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

[11] HHS Strategic Planning Materials, 2008.

[12] 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.

[13] 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.

[14] 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.[15]

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.[16] 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

[15] 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.

[16] 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.[17] 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.[18]

[17] *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).

[18] *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. [19] [20] 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. [21] 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.").

[19] *See, e.g., Home Health Specialists v. Liberty Health System*, 1994-2 Trade Cas. (CCH) ¶70,699, 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.

[20] *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.").

[21] *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[22] – 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

[22] *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.[23]

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.[24] 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.[25] 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.[26] The referenced

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[23] *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.

[24] Preliminary Report, pp. 6 and 20.

[25] 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.

[26] 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.[27] 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.[28] 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.[29]

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."[30] 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.

[27] 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.

[28] 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.

[29] 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.

[30] *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."[31]

We appreciate the HPC's statement that "the NSMC and HHS hospitals are important providers of behavioral health services to their local communities."[32] 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

[31] Ibid., p. 20.
[32] 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."[33] 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"[34] 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

[33] Ibid., p. 15.
[34] 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

Estimated PHS PHM Savings	2016	2017	2018	2019	2020	Avg/Year (5-Yr)
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
Care Continuum	$2.88	$4.59	$4.68	$4.77	$4.87	$4.36
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
Est. PHM Savings to HHS Population	**2016**	**2017**	**2018**	**2019**	**2020**	**Avg/Year (5-Yr)**
Primary Care Growth	$1,421,818	$4,520,343	$7,172,277	$8,674,357	$9,061,045	$6,169,968
Existing Lives	$10,821,537	$15,290,928	$15,596,747	$15,908,682	$16,226,856	$14,768,950
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	**Patient Centered Medical Home (PCMH)**	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
	Integrated Care Management Program (iCMP)	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
	Palliative Care	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)
	Mental Health Integration	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	**Active Referral Management**	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)
	Procedure Decision Support (appropriateness) and Patient Reported Outcomes	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

	Virtual Visits	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)
Care Continuum	**Skilled Nursing Facility (SNF) Network and Waiver**	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
	Mobile Observation Unit	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
	CHF Remote Monitoring	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
	DM and HTN Remote Monitoring	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
Estimated PHM Savings					$20.9M

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.[35] Similarly, the HPC reduces Partners' projected $9.9M to $20M outpatient savings potential to $900K to $1.8M.[36] 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

[35] Ibid., p.55.
[36] 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.[37] 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

[37] 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.[38] 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[39] 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

[38] Ibid., p. 22.

[39] 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.[40] The HPC recognizes that "differences in the parties' performance across quality measures indicate that there should be opportunities for [HHS] to improve its quality."[41] 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.[42] 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).[43] 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.[44] 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.[45] The Transaction initiatives represent investment in the kinds of major care delivery system

[40] 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).)

[41] Preliminary Report, p. 65.

[42] 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.)

[43] 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.

[44] 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.

[45] 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.[46]

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 NMSC 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.[47] 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

[46] 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.

[47] 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.[48]

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.

[48] 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

Primary Care	• Patient Centered Medical Home (PCMH) • High risk care management (palliative care) • Mental health integration • Virtual visits
Specialty Care	• Active referral management (curbsides) • Virtual visits • Procedural decision support (PrOE) (appropriateness) • Patient reported outcomes • Episodes of care (bundles)
Care Continuum	• Urgent care • SNF care improvement (network/waiver/SNFist) • Home care innovation (mobile observation/telemonitoring)
Patient Engagement	• Shared decision making • Customized decision aids and educational materials
Infrastructure	• Single EHR platform with advanced decision support • Data warehouse, analytics, performance metrics

Appendix C: PHM Bibliography

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